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THE SPHERE, DECEMBER 6, 1941
With which is incorporated "BLACK & WHITE" 1/6

THE SPHERE

Vol. CLXVII No. 2185 WITH WHICH IS INCORPORATED THE GRAPHIC DECEMBER 6 1941

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A Little Thought for Christmas

OUR wealth, said a philosopher long, long ago, consists less in the multitude of our possessions than in the fewness of our wants . . .

Stern days of conflict have brought a new and sharper appreciation of the truth of that age-worn maxim.

Most of us of late have perforce revised our wants, and in the process have mightily reduced their number, but have learned thereby that, given a reasonable measure of fulfilment, our share of human happiness may well be greater than before. You will recall that Omar himself glimpsed paradise in "a loaf of bread, a flask of wine, and thou. . ."

To-day, of course, he might have requisitioned a few biscuits in addition; being very wise he might have specified the biscuits of McVitie & Price.

A simple joy indeed and wholesome withal, though a little hard to come by in these days of fashionable shortage.

But be assured that McVitie & Price will contribute their utmost as far as may be to the fulfilment of your modest wants and thereby, be it hoped, to your greater enjoyment of Christmastide.

McVitie & Price Ltd.

Volume CLXVII No. 2185

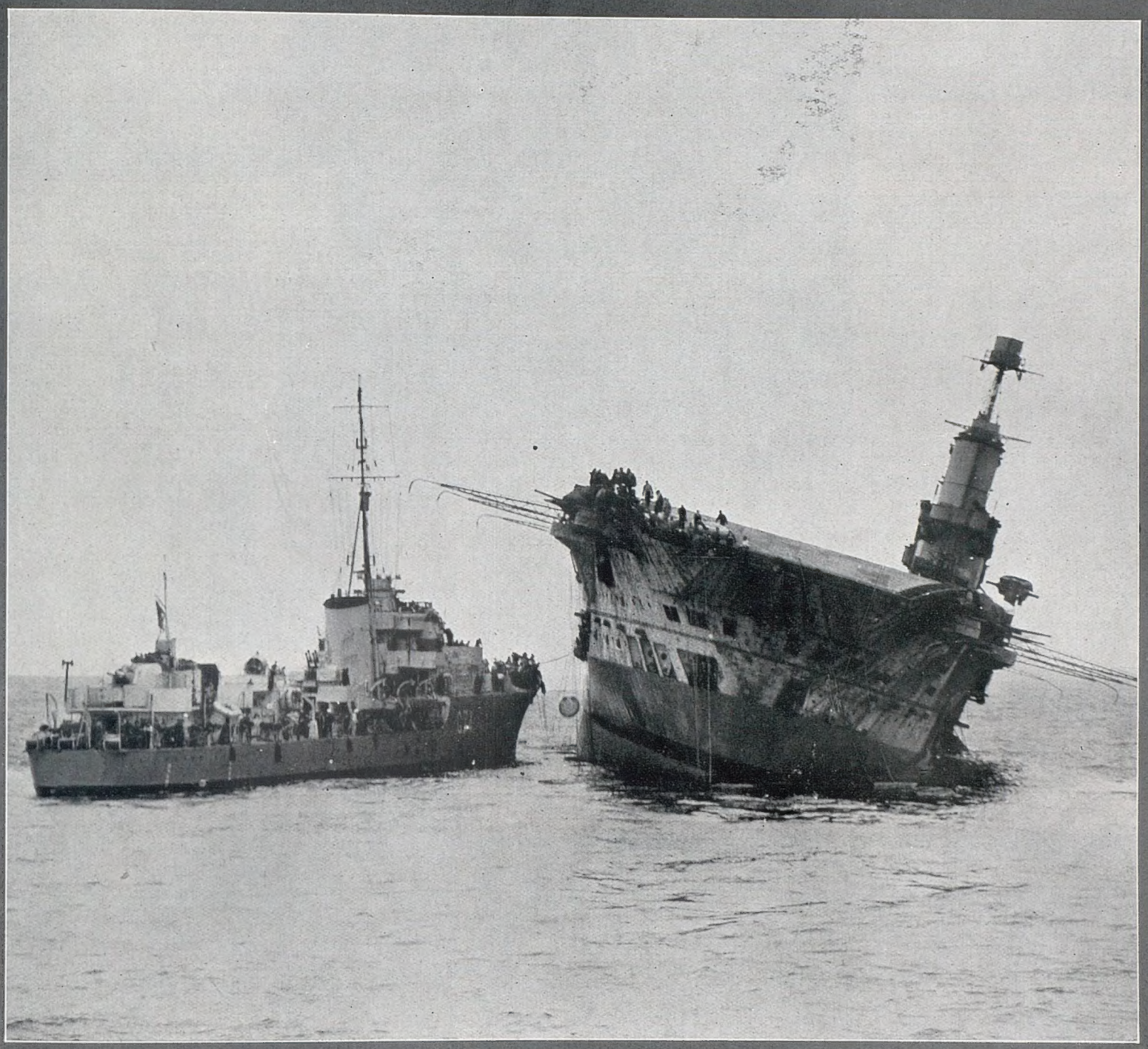
The SPHERE, London, December 6, 1941

THE SPHERE

With which is incorporated "THE GRAPHIC"

The Empire's Illustrated Weekly

London, December 6, 1941



THE SINKING OF H.M.S. "ARK ROYAL": A DRAMATIC PICTURE TAKEN AS A DESTROYER WENT ALONGSIDE THE STRICKEN AIRCRAFT-CARRIER TO TAKE OFF THE SURVIVORS JUST BEFORE THE TORPEDOED VESSEL SANK

The sinking of H.M.S. *Ark Royal* brings to an end a story of the sea, and of brilliant achievement under the most rigorous wartime conditions. Where action was brewing there was to be found the *Ark Royal*, playing her part in many theatres of war, from the Northern seas to the South Atlantic, in the Mediterranean and elsewhere, seeking out the enemy. Axis propaganda sank the aircraft-carrier in broadcasts, and the Nazi airman alleged to have sunk the vessel was decorated and feted in Germany. But the *Ark Royal* lived to tell another story and continued to add to her fame and contribute to naval history. The passing of the *Ark Royal* as she was going "about her business" was in keeping with her high sea traditions. A "happy" ship from the beginning to the end, she will be mourned, but will be remembered as "The Ark." Her story will be treasured in the annals of British naval history

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A WAR NEWSLETTER—No. 118

1, NEW OXFORD STREET, W.C.1

Grounds for Satisfaction.

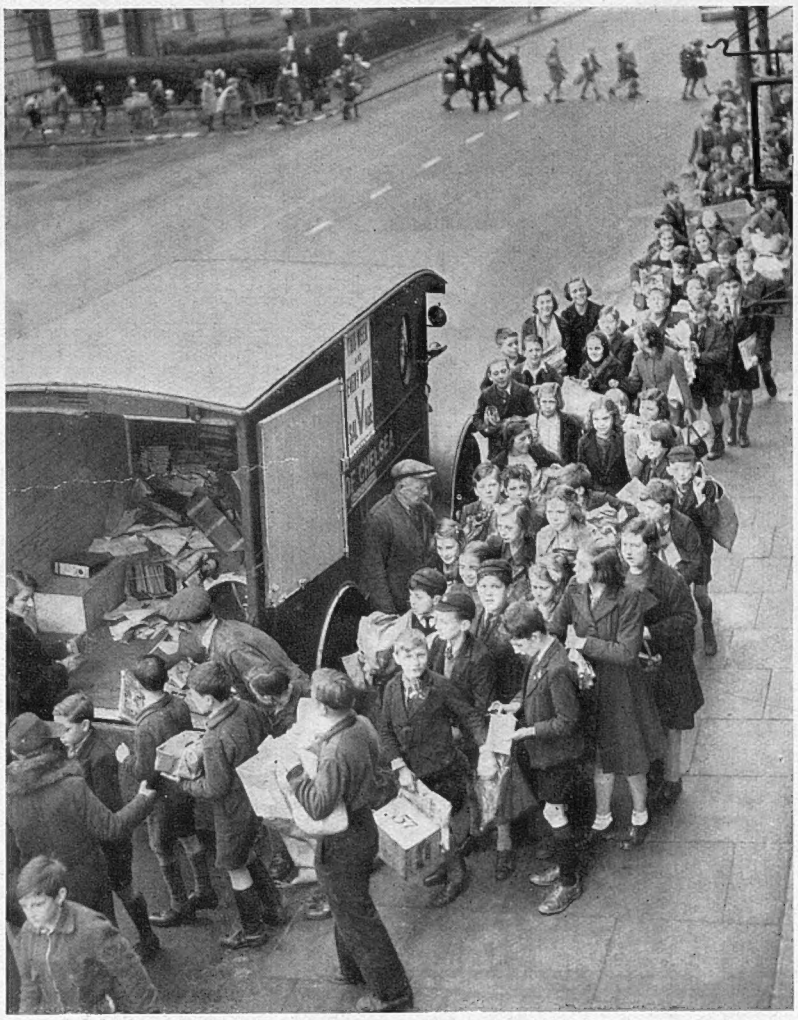
—In these dark days of winter and the war, we have some solid grounds of comfort. It is "hard pounding, gentlemen," and we shall continue to get some nasty jolts and setbacks all along the line at sea, in the air and on land, from Murmansk to Benghazi, and thence to Dover, and perhaps across the oceans to Hong Kong. But we and our Allies between us are giving as good as we get—and better—as "far back, by creek and inlet making, comes silent, flooding in, the main" of ultimate victory. When at last a "war on two fronts" became a reality, what a load fell from our hearts! We began to feel cleaner and sweeter, and those of us who did not succumb to armchair criticism of strategy were able to appreciate without a sense of shame that our Government must have suffered in silence very manfully while they were planning to the last detail this Libyan offensive. Whether its initial success was as large and swift as the most optimistic experts expected or not, we could not but value the restraint and moderation of General Auchinleck's progress reports, and by the end of a fortnight we were made aware that already a serious blow had been struck at the Axis forces in the Western Desert, that some relief had been given to the Russians, and that already we were in better shape to batter at Italy and to maintain the "freedom" of the Mediterranean. We knew also that a still dangerous threat to the East via Egypt had once more been postponed. Best of all, we realised that Hitler is now thinking furiously, and that his eye must switch, from now onwards, from one to another of more than a dozen little breaches and trickles in the Reich dam, which will continually increase in number and in size. We have grounds for solid confidence—despite serious setbacks.

Canada in England.

—But not for complacency—not by a long way. Nevertheless, I feel (and wish to record) the sense of comfort which I derive from the presence in England of a large and now complete Canadian Army. Myself a citizen-soldier, I am perhaps more influenced by the words of Canadian citizen-soldiers than by those of our own higher command. It is clear that the keynote of the Canadian commanders in training their own men, and those among us who will fight beside them, is the assumption that Hitler will certainly try invasion, and that he will do so not later than the early summer. That assumption—whatever be one's private opinion—is not only the best policy for training, but it is sound common sense, and also the best hope of averting what can only be—however successfully and bloodily frustrated—a great evil. I have recently heard one or two fine, sound, spell-binding speeches by Canadian commanders, and these speeches have convinced me that the Canadian Army will not waste an hour of the winter months ahead towards the goal of complete readiness (readiness not for defence, but for all-out attack, whether in this island or on the Continent), and mean to give to those units of the Home Guard in their midst that understanding help in training which has too long been lacking. Citizen-soldiers themselves, and business men, they can view our problems more sympathetically, and with greater imagination, than have the pundits of Whitehall.

Papen Prophesies.

—Papen has bungled everything he has set his hand to since his mission at Washington in the late war, and perhaps before that. He lately made a pronouncement, a prophecy and an admission to a neutral journalist at Ankara. Now a "neutral journalist" may "mean anything"; Papen may "mean anything." For what it be worth, here is the gist of what Papen is *reported* to have said, and, Heaven knows, it is the shadow of a shadow of a possible truth. **1.** "The Russian campaign will bring Germany to the verge of exhaustion before victory can be won. She will have to demand an armistice. For that reason, it is vital to her to keep Turkey neutral against the day when mediation is required." (Hearing this, Turkey presumably instantly redoubles her vigilance against sudden aggression.) **2.** "Britain had better accept this armistice, because, if Germany is forced to fight on, she, the strongest Power ever raised in Europe, will harness all the resources of the Continent to continue the struggle for years until victory is won." Britain, hearing this, gains confirmation of the expected peace offensive, resolves to scotch it in advance, but takes special note of all signs that Germany is already "harnessing the resources" of enslaved Europe for prolonged war, e.g. helping Darlan to re-equip the French Navy. **3.** "If Britain elects to fight on after the peace offensive, Turkey will be brought under, and into, the European Axis *bloc* by force and by bribes. Turkey and Spain would 'control the sea'"—presumably the Mediterranean—"and Turkey would be given a sphere of interest in Iran and Syria." (Time of presentation of these bribes not stated.) Hearing this, both Spain and Turkey might well welcome the generosity of Hitler, but question his ability to cash up timously. **4.** "Stalin's scorched-earth policy has ensured that Germany will next year get only 20 per cent. results from harvests in the occupied Ukraine, and no profit at all for years to come from mines and industrial acquisitions." **5.** "Nevertheless, the New Order will be created, and any State in Europe which resists it will be starved into submission and beaten into obedience." How much of this did Papan say to the neutral journalist? What proportion of what he said (if anything) did he say with Hitler's authority? What is truth, as Pilate (am I right this time?) once asked? And, finally, what was the real design of Hitler behind that part (if any) of Papen's Hitler-authorised pronouncements made to a neutral journalist (if any) and by that journalist faithfully reported? I cannot guess. It is what to-day we call "news."



EVEN THE CHILDREN ARE HELPING IN THE PAPER-SALVAGE CAMPAIGN, one of the most vital of civilian tasks of the moment: Schoolchildren in Chelsea recently staged a "strong-man act"! They carried a two-ton load from their school in Glebe Place to the King's Road. The load was split up amongst 300 boys and girls, each of whom carried approximately 11½ lb. of precious paper for pulping for the war effort, besides rags, bottles, scrap metal and old dry batteries. **The need for every scrap of waste paper is urgent. PLAY YOUR PART NOW!**

Critic Proof.

—In the British Empire to-day there are a very few institutions which are impregnably secure against criticism and universally held as "sacred." There has almost always been a very small and "exclusive" list of such sacred institutions, but the list has constantly changed. To-day I should say it includes or comprises the Monarchy, the Royal Navy, the relations between the free nations which compose the Empire (as defined by the Statute of Westminster), and . . . Mr. Churchill. It was not ever thus. A century ago, even *The Times* poured outrageous scorn on the Monarchy, and the immunity of the Throne from even ultra left-wing criticism dates only from the latter part of the reign of Edward VII. Until the other day, I should have said that our system of Judicature was (and had for a long term been) critic-proof generally (save in isolated instances of miscarriage of justice, e.g. the Beck, the Slater, the cattle-maiming cases). I cannot recall if there ever was an era when the Bench of Bishops was immune from criticism. It is certainly not so now. I am sure the Civil Service never was immune, nor the Army. The Navy has had its spells of harshest criticism, but it won (and kept) complete immunity a generation (if not 136 years) ago. To be so immune, such institutions must qualify by the longest and severest tests of virtue. I think Mr. Churchill's case is unique. I cannot remember any instance of a Prime Minister being totally immune from criticism. Such a thing could only come in Britain in a life-and-death struggle of first magnitude. For Premiers are No. 1 Aunt Sallys for the critics in a democracy of our kind.

Compromise and Inconsistency.

— A journalist's correspondence with his readers gives him (in wartime especially) a very curious insight into the diversity of opinion held by the public on a score of questions of the hour, and brings home to him the depth and breadth of the fog with which war invests our powers of reasoning. It seems, from such evidence as my mail-bag brings me, that we are for ever blowing hot and cold; for ever declaring for a two-colour scheme (black or white) and finding most things grey or piebald; for ever burning our boats and then compromising. After two years of total war, we reached a majority opinion that in total war there can be no compromise. We are fighting for survival. A vast majority of the nation accepts that principle. Yet, immediately, the issue is confused. "We are fighting for the survival of freedom," which includes freedom of speech. The nation accepts that also in its stride. And what happens? As soon as ever an individual advances an unpopular minority view, he is treated with scorn as a half-wit or branded a traitor. Follow this to its logical end. We are *not* "fighting to keep freedom (of speech, etc.) alive," but to keep it in pickle for use again when the war is over? But that is not the practice or policy of Parliament, or the Press; and there is no indication that the Premier favours such a policy while war lasts. He may sometimes speak bitterly of loose criticism, but broadly he upholds freedom of speech—and always has done so. This, then, is clear inconsistency in the nation. If we are fighting to keep freedom alive, we should be tolerant of all minority opinion. If we are fighting to keep freedom in pickle until the peace, our Parliament and our Press should follow the totalitarian model of the sheepfold. Take, next, our attitude to morality and religion. You cannot expect that good Christian, Admiral Cunningham, to spare the little schooner full of innocent Nazi soldiers bound for Libya, when his 16-in. gun has it in its sights. Fight the good fight for Christianity with all thy might. Will it do if he sink the Nazi schooner and forbear to "exude unholy joy"? At first sight that seems better, seems to be in better taste, and so on. But only at first sight. How can you stamp out Satan unless you rejoice in the work you are doing for Christianity and decency? How can you train an army to defeat ruthless barbarians unless you instil in their hearts a like ruthless determination?

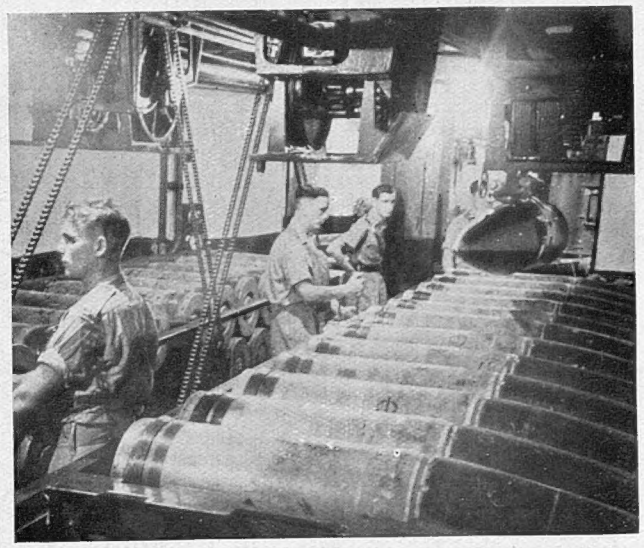
Futility of Reasoning.—

Then Christianity and religion must go for the duration? Logic assures you that you cannot start your day by praying for grace to forgive your enemy, and then sally out and avenge your own wounds by bombing him. Religion must go, or else logic must be thrown overboard . . . ? Come, we are getting into the very heart of the maze. The muddle is not smoothed out by our varied attitudes of mind regarding, say, Russia. A correspondent writes: "I wonder what are the views of the Nice Old Man with the Kind Face—I refer to Comrade Stalin—concerning Point 3 of the Atlantic Charter?" What shall I reply? I have my private views. I fancy Comrade Stalin is more realist than some British pundits in lawn or broadcloth. I fancy he keeps his creeds in separate boxes and not in one hold-all. He opens that box only which contains pressing matters. Can we reach "the conclusion of the whole matter"? I fear not. I have a simple, cowardly *compromise* for my journalistic problem. I tell my correspondents that "pressure of war work makes it impossible to reply individually to their hundreds of letters." Thus, I avoid the difficult issues and give myself an undeserved advertisement as a stimulating publicist. Is this honesty, logic, compromise, expediency or sheer necessity? The mists of war close down on my answer. I conclude that in total war the pivot virtues are physical courage and blind obedience, and that other virtues, which normally we prize highly, take on in wartime a much lower ranking

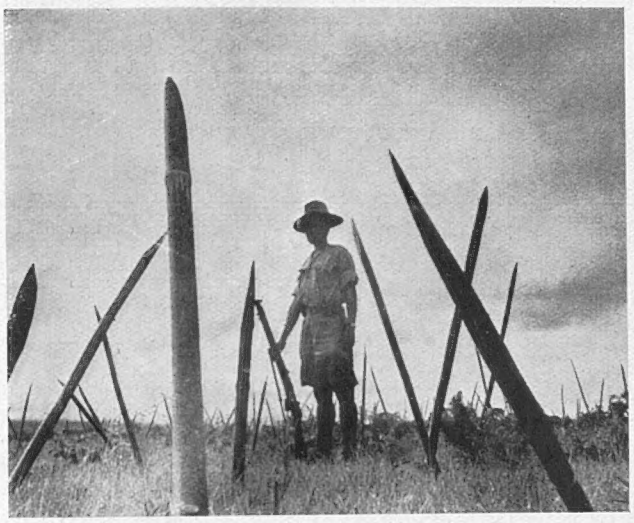
THE OLD STAGER

SINGAPORE IS NOW IN A STATE OF EMERGENCY

THE STAFF AT SINGAPORE : Air Chief-Marshal Sir Robert Brooke-Popham is the British Commander-in-Chief in the Far East. He is here seen holding a Staff conference at his headquarters at the Singapore Naval Base. At the opening of this week, the Governor of Singapore, Sir Shenton Thomas, signed a proclamation declaring "a State of Emergency" and calling up Army Navy and Air Force reservists and volunteers



SINGAPORE'S BIG GUNS ARE READY : The striking power of the Island has been formidably reinforced in recent months, and a concentration of heavy artillery is now ready there. The big guns ring the island strategically and command all its seaward entrances. The shell-rooms (such as the above) are all built deep underground



THE AERODROMES OF BURMA are defended against surprise attack : On pp. 304-5 of this issue a diagram of the Burmese aerodrome system is given. The above picture shows how these, and other, strategic points are safeguarded against surprise attack by paratroops These razor-sharp, fire-hardened bamboos are an old Burmese device adapted to modern needs

AMERICAN FIGHTER PLANES ARE ON CONSTANT PATROL OVER MALAYA : Month after month, without publicity or fuss, American fighter aircraft have been arriving in Malaya, and their assembly has continued at high speed. The people of Singapore have become used to the long crates passing through their streets ; and they now hardly notice the roar of aircraft being tested near and over the city. But the planes are there in great numbers—distributed strategically throughout Malaya : this is one of the first pictures released for publication of Brewster Buffaloes in formation over Singapore. In addition to these and other aircraft, numbers of British "long-nose" Blenheims have also arrived to strengthen Malaya's air defences

SIAM, TOO, IS READY FOR EVENTUALITIES : The Thailand (Siam) Council of Regency has just issued a decree creating a Supreme Command for National Defence. Field-Marshal Luang Bipul Songgram, Premier of Siam (above), is also to take over direction of the armed forces of that country as well as the duties of Defence Minister. Lying alongside Burma, and adjoining Malaya, Thailand is in a strategically important position in the event of war in the Far East

NEWLY-ARRIVED R.A.F. PERSONNEL WAITING, AFTER DISEMBARKATION, IN A TRANSIT CAMP NEAR SINGAPORE : Seated amongst the rubber-trees (note the old tapping cuts), they await orders drafting them to one of the many R.A.F. stations which have been established throughout Malaya. The aerodrome system of the peninsula links up, in fact with that of Burma to the north

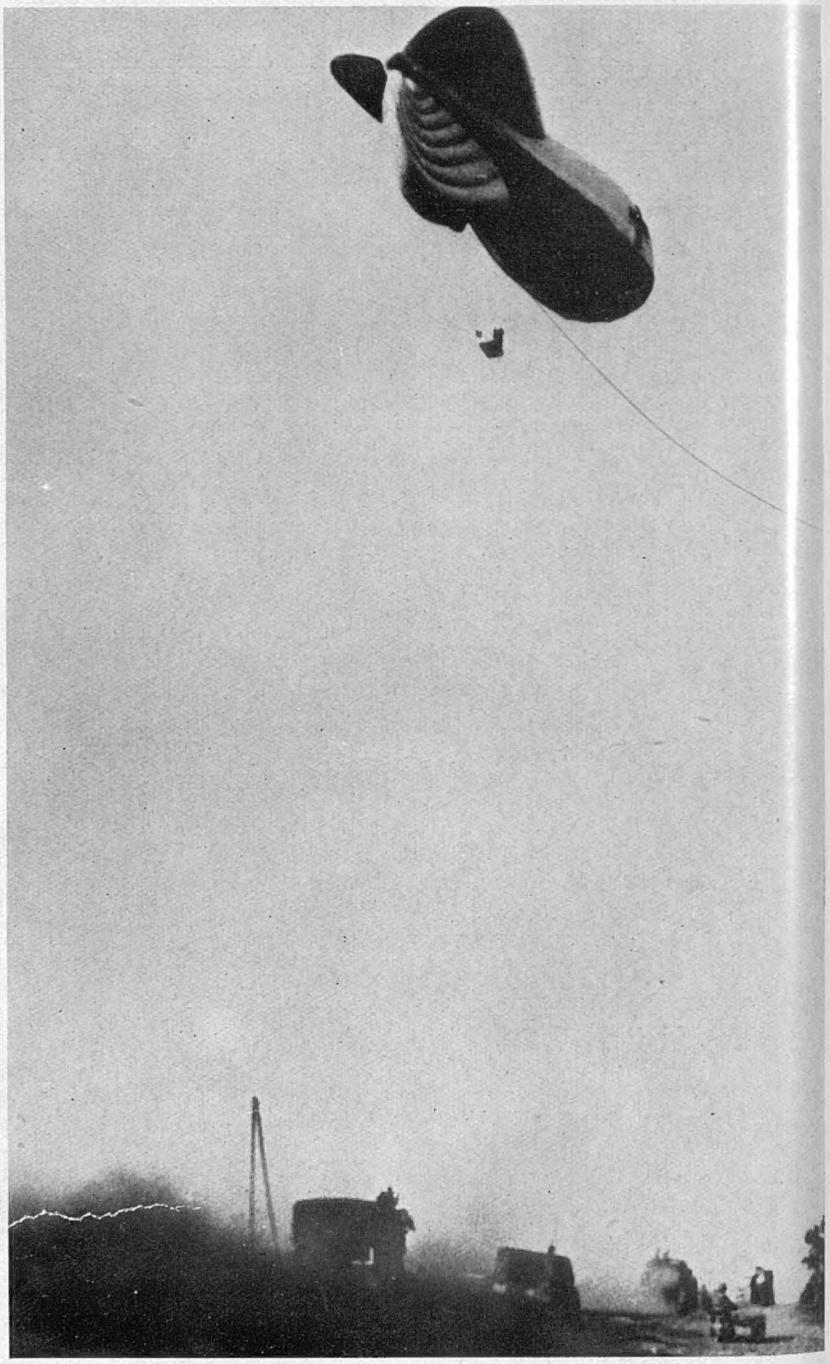
DRAMATIC PICTURES from RUSSIA

Which Show the Conditions under which Warfare is now being Waged on the Eastern Front. (*See also pages* 308-11 *of this issue*)

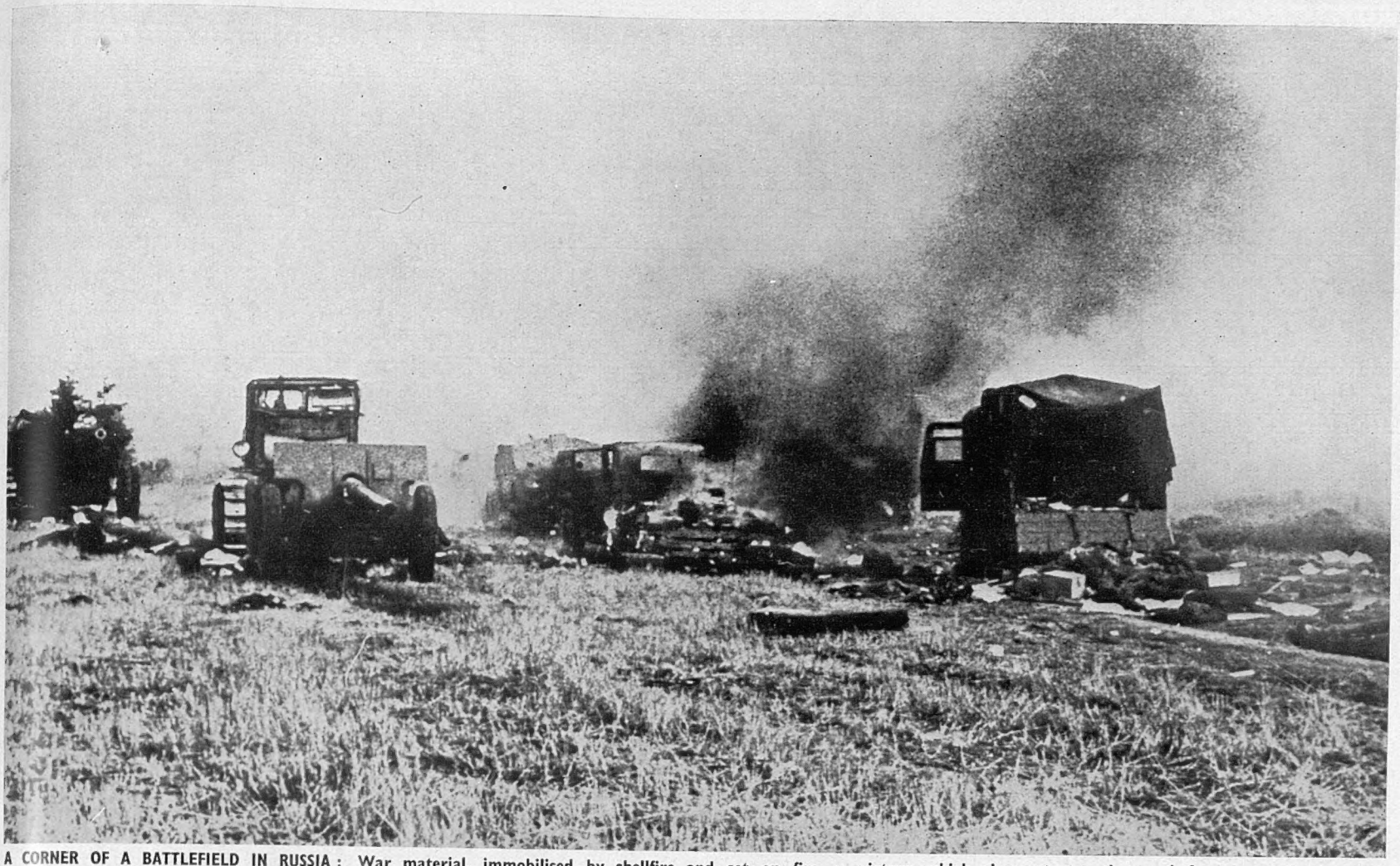
THE CITY FROM WHICH THE GERMANS HAVE BEEN DRIVEN : This is a street scene in Rostov on the Don, which the Germans recently occupied after a long and bitter struggle and from which they have now been ejected by the Russians. More than this, their armies have been streaming back to Taganrog in the utmost disorder ; and at the beginning of this week it was stated that even Mariupol, 90 miles away on the sea of Azov, was in danger. German losses were reported to be enormous, with Russian paratroops dropped behind the German line of retreat wreaking greater and greater damage to the Nazi forces under von Kleist

WHY THE NAZIS HAVE BEEN FORCED TO USE HORSES IN RUSSIA : A column of German lorries had been using the notoriously bad roads when they became bogged in the thick mud and swampy marshland. The result was that the lorries had to be abandoned—or at least until such time as the earth dries out again ! In such districts (and such conditions were general throughout the wet autumn) the enemy were compelled to resort to horsed transport

AROUND LENINGRAD THE STRUGGLE HAS DEVELOPED INTO TRENCH WARFARE : For many weeks now the German forces around the northern capital have been held to a standstill. In this region it would appear that the fighting has acquired a static characteristic—in short, it has become trench warfare. This picture, from a German source, has reached England via America. It was obviously taken some weeks ago, to judge by the absence of snow on the ground. The position of the German attackers under the present wintry conditions must be far from envious !



BARRAGE BALLOONS ARE USED BY THE GERMANS TO PROTECT THEIR SUPPLY COLUMNS : Having completely "wiped out" the Russian Air Force (or so the Germans claimed) in the earlier stages of the campaign, the enemy have since found it desirable to adopt this method of protecting their columns from the attacks of the Russian dive-bombers ! To prevent the Stormoviks and other bombing aircraft from swooping down, barrage balloons are now being flown in the manner illustrated above—a new idea in land warfare !



A CORNER OF A BATTLEFIELD IN RUSSIA: War material, immobilised by shellfire and set on fire—a picture which demonstrates the need for almost inexhaustible reserves to make good the terrific wastage of modern warfare

On both sides in Russia to-day, the war is being waged on such a scale that the wastage in war material is simply stupendous. Despite the vast reserves they built up during the years of preparation, the Nazis must be feeling the drain caused by artillery bombardment, dive-bombing, the bogging-down of their transport columns, sabotage and the hundred-and-one other reasons for the wastage of their material. The picture above, and the one below, give an indication of the scale on which modern warfare is waged and the results which follow any check to the forward movement of the attackers

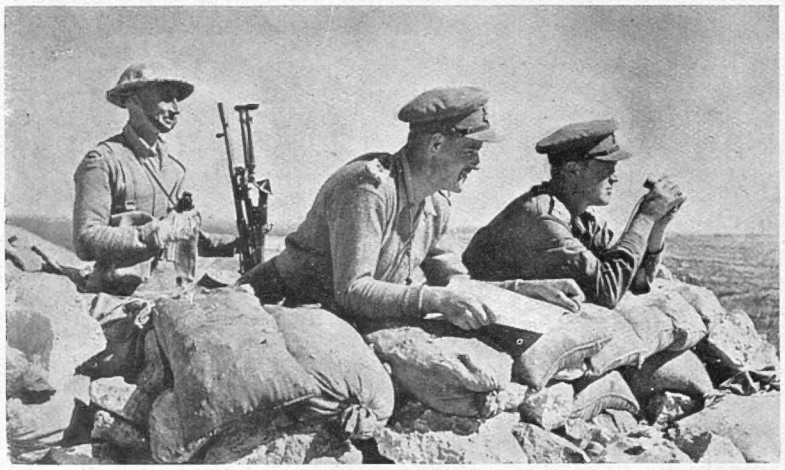
THIS IS THE RESULT OF AN AERIAL ATTACK ON A MOTORISED COLUMN IN RUSSIA: One section of the column—motor-cars, supply lorries, troop-carriers—has been completely obliterated, and now lies in ruins on both sides of the track

Mechanisation, has its defects in modern warfare. Over the vast plains of Russia the long lines of a convoy present a target to attacking aircraft of which both sides have made the fullest use. Hence the need for greater and greater efforts on the part of the factories of both countries! As the Russian Air Force—aided both by Britain and the United States—grows in numbers and strength after its initial heavy losses, scenes like the above will become of greater occurrence. In this case, the mechanised column was traversing one of the secondary roads which abound in Russia when it was subjected to attack from the air: hundreds of vehicles now strew the plain in various stages of destruction

BEFORE the BIG OFFENSIVE OPENED

GENERAL AUCHINLECK, C.-IN-C., MIDDLE EAST, WITH MAJOR-GENERAL FREYBERG, V.C., WHO IS IN COMMAND OF THE NEW ZEALANDERS

JUST BEFORE THE BATTLE BEGAN: General Auchinleck paid a visit to the Western Desert and watched battle exercises being carried out

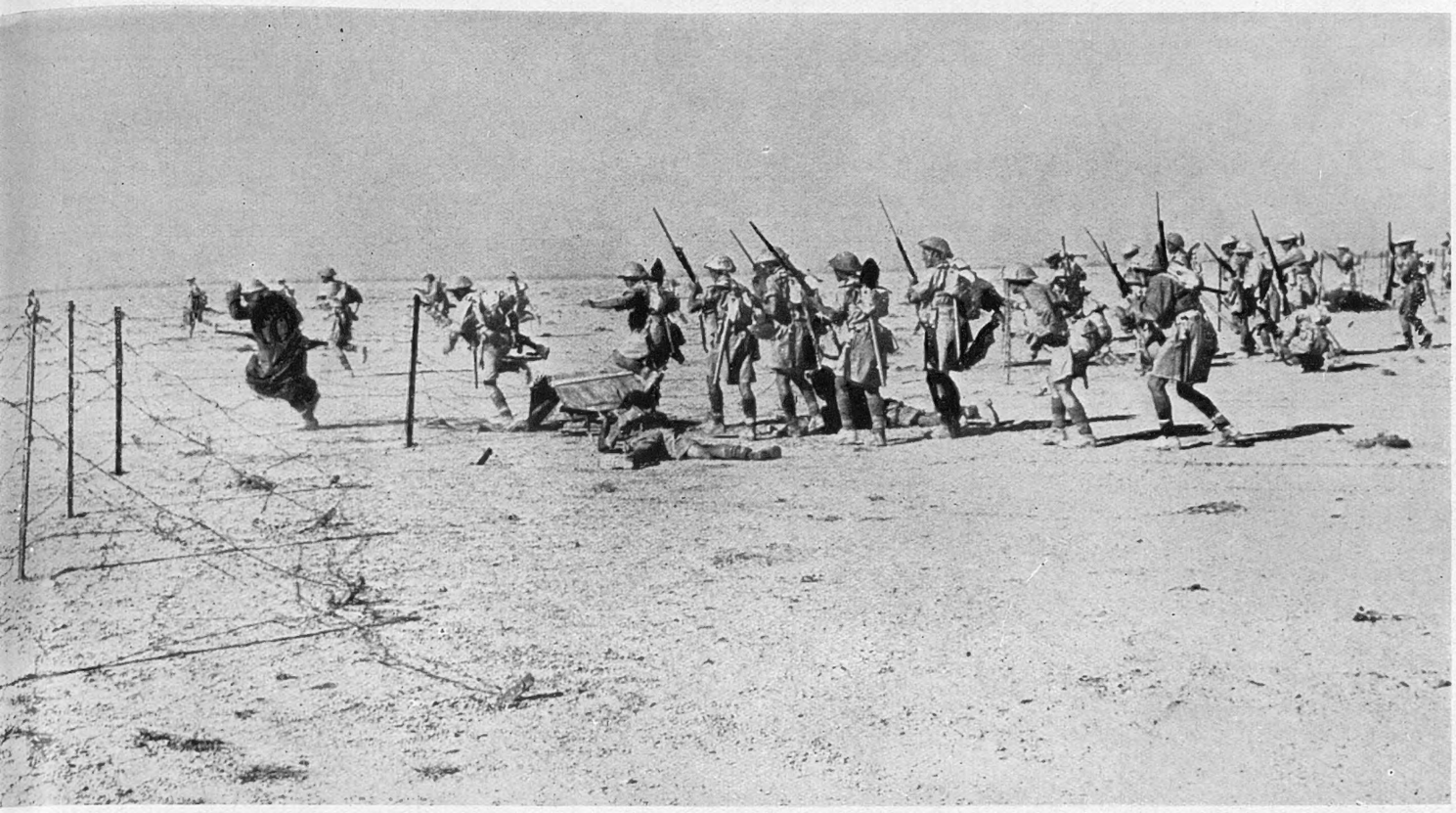


THE MEN IN TOBRUK: Captain E. D. P. Goldsmith and Captain R. P. Chalmers (both from Leicester city), with a Midland County Regiment in a forward position at Tobruk

AIR VICE-MARSHAL CONINGHAM, who is in command of the R.A.F. in the Western Desert, with AIR MARSHAL A. W. TEDDER, who is Air Officer Commanding-in-Chief, R.A.F., Middle East

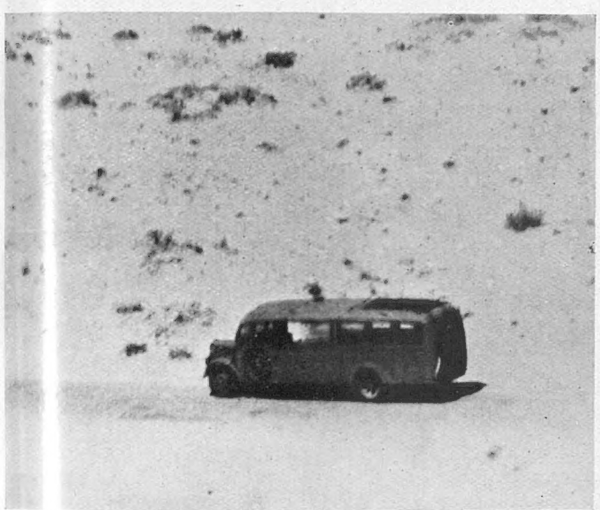
THE "BISHOP OF TOBRUK": This genial gentleman is Mr. Gardner, formerly of Uxbridge, who is now serving as a padre with a Midland county regiment in the Western Desert. He is here seen with the captured Italian car which transports him from point to point in his diocese

A NEW PICTURE FROM THE TOBRUK FRONT: As news came in of the start of the second great desert clash near Tobruk, this picture arrived in London from that area. It shows the battery of an advanced Italian force in position near the town: the men are probably our prisoners by now, as the garrison soon after sallied forth and joined up with other forces in the Western Desert

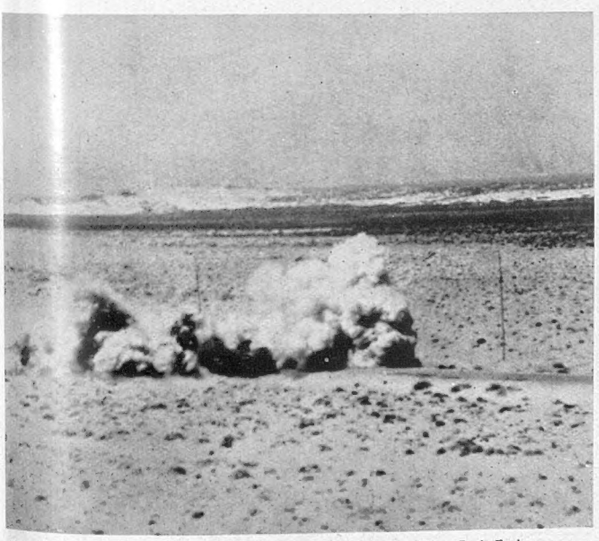


THE REHEARSAL FOR THE REAL ATTACK: British infantry practising to negotiate barbed-wire entanglements in the desert before the big offensive was opened

This picture was taken on the Libyan frontier a short time before the offensive was staged at dawn on November 18. Exercises were constantly held under active-service conditions in the desert, so that the British, Imperial and Indian forces engaged could be fully aware of what was being expected of them a little later



THE WORK OF THE R.A.F.: An enemy transport vehicle is encountered in North Africa: the result of the encounter is shown in the second picture below

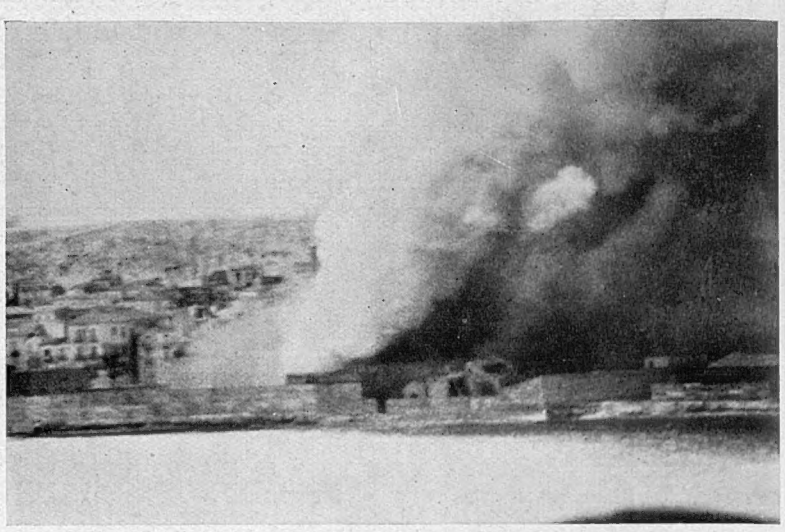


AFTER THE LOW-FLYING ATTACK BY THE R.A.F.: The R.A.F. have supported the land operations in the desert in most brilliant fashion. Here is one small item in their campaign: an enemy transport vehicle was observed scurrying along a North African road. The R.A.F. swooped down on the vehicle, dropped its bombs—and the enemy coach just disintegrated!

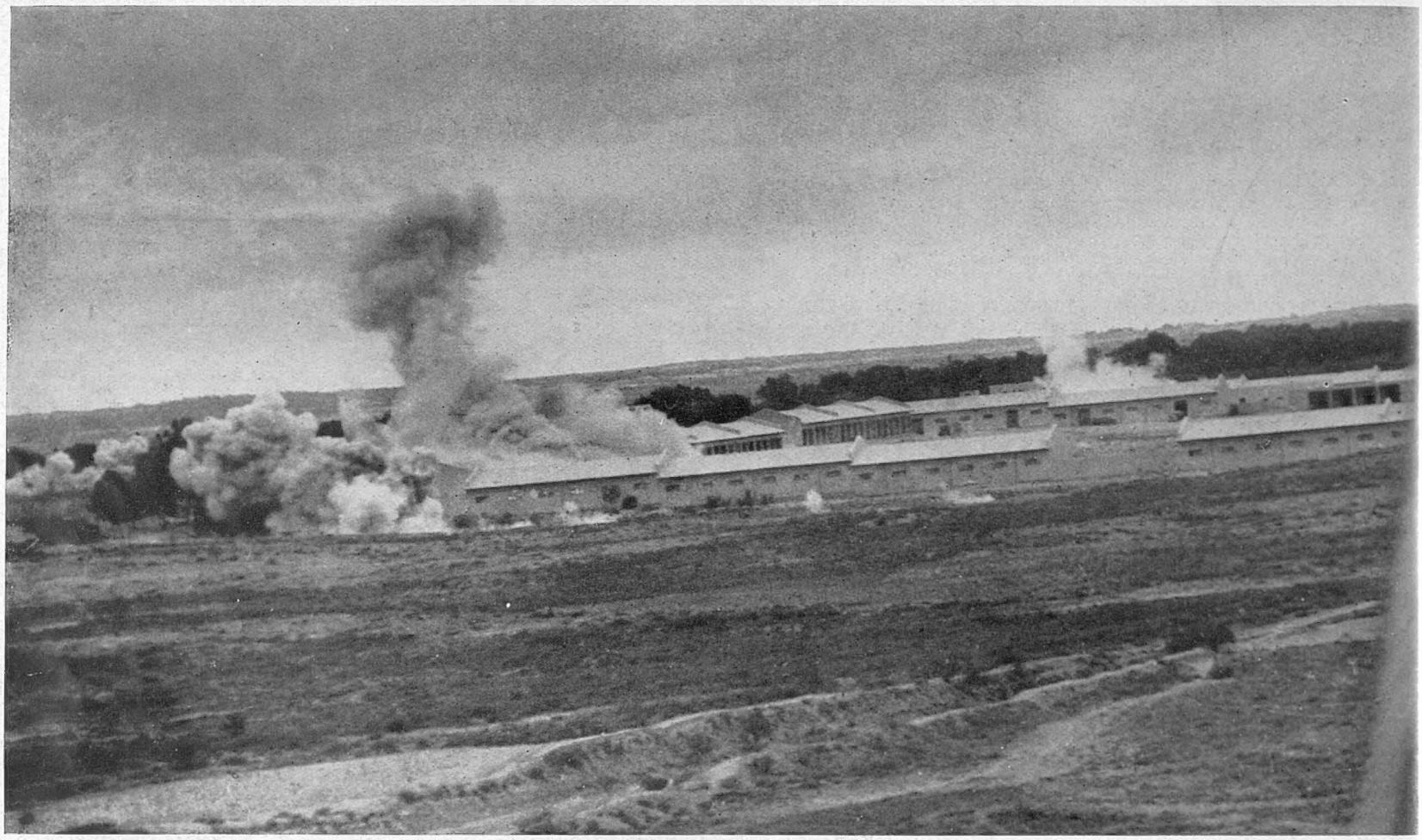
THIS IS THE OASIS OF JALO, CAPTURED BY BRITISH FORCES ON NOVEMBER 25: Jalo and its twin oasis of Augila lie far to the south-west of Tobruk and the present fighting zone. Both were captured by a separate British force on November 25, whilst the battle at Sidi Rezegh swayed back and forth. The Italian garrison reported itself by radio as "overwhelmed" and all were captured. Jalo is a desert fortress of considerable size and of great strategic importance in desert warfare. It may figure subsequently in further operations, as it controls the approaches to the Gulf of Sirte and the coast road from Tripoli to Cyrenaica

R.A.F. SUPPORT for the LIBYAN OFFENSIVE

AN ATTACK BY MEDIUM BOMBERS ON A FACTORY AT LOCRI, IN CALABRIA: Pilots reported that they saw Italians wave to them as they flew in low over the target to the attack

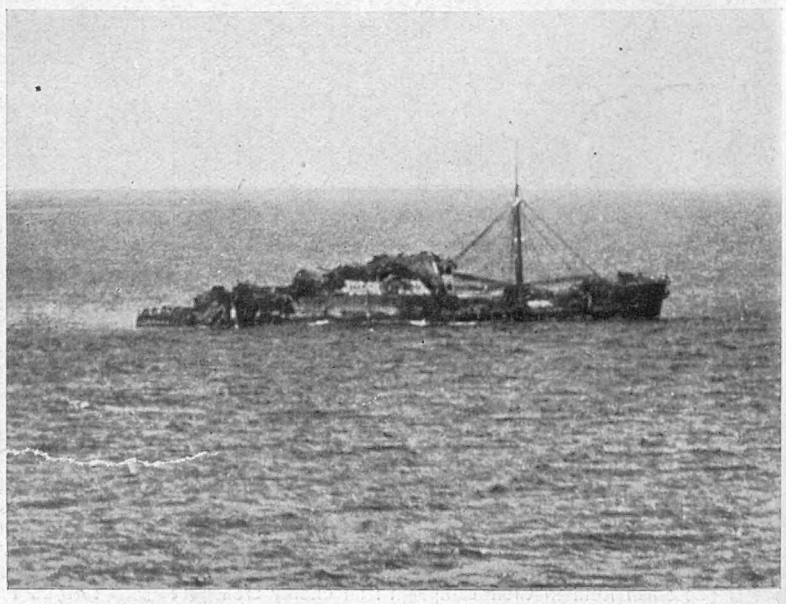


AN ATTACK ON PORT EMPEDOCLE, IN SICILY—Hits were made on the power station and a factory, and clouds of yellow and black smoke rose from the building: The R.A.F. of the Mediterranean Command have been ceaselessly attacking vital objectives in Italy and Sicily, and they have proved an important factor in the Allied offensive in Libya. These pictures illustrate some of their activities during the present campaign

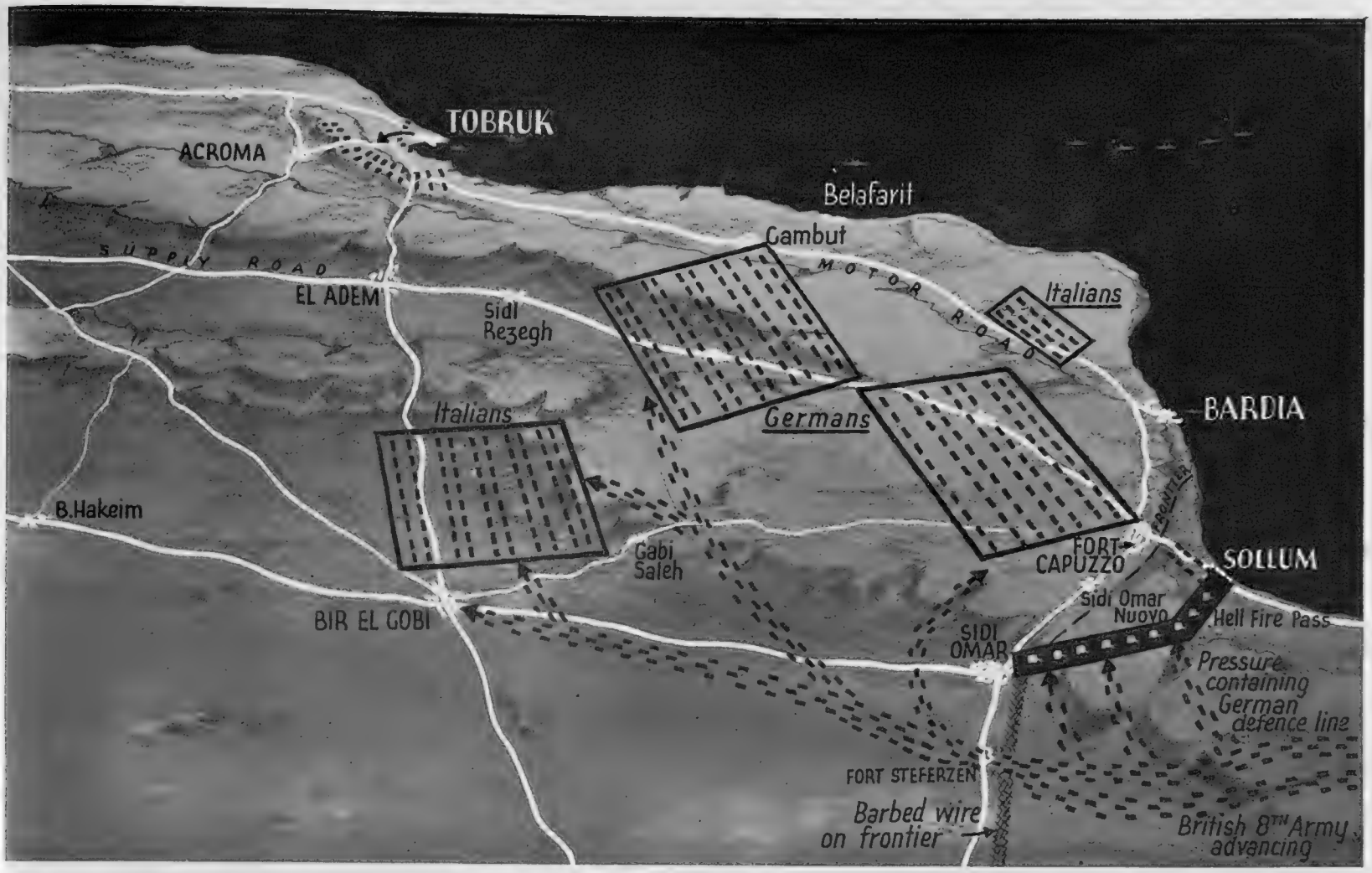


AN ATTACK ON THE ITALIAN BARRACKS NEAR MELLAHA, AN AERODROME AT TRIPOLI, IN LIBYA: Hits were made on all the barrack blocks forming three sides of the square, and on a motor-transport shed which completed the fourth side of the square. Tripoli is Italy's most important supply base in Northern Africa

THE ATTACK BY THE R.A.F. ON A FACTORY AT LICATA, IN SICILY: The clouds of smoke are caused by the bursting bombs



A HEAVILY-LADEN VESSEL OF 1,000 TONS: Hits were registered amidships and the vessel eventually sank in the Mediterranean



1. THE OPENING PHASE OF THE STRUGGLE: TUESDAY, NOVEMBER 18, AT DAWN—The Eighth Army breaks through the frontier barrier at Fort Steferzen and then spreads out fanwise to split up the enemy's forces into four main portions—*Drawing by L. Ashwell Wood*

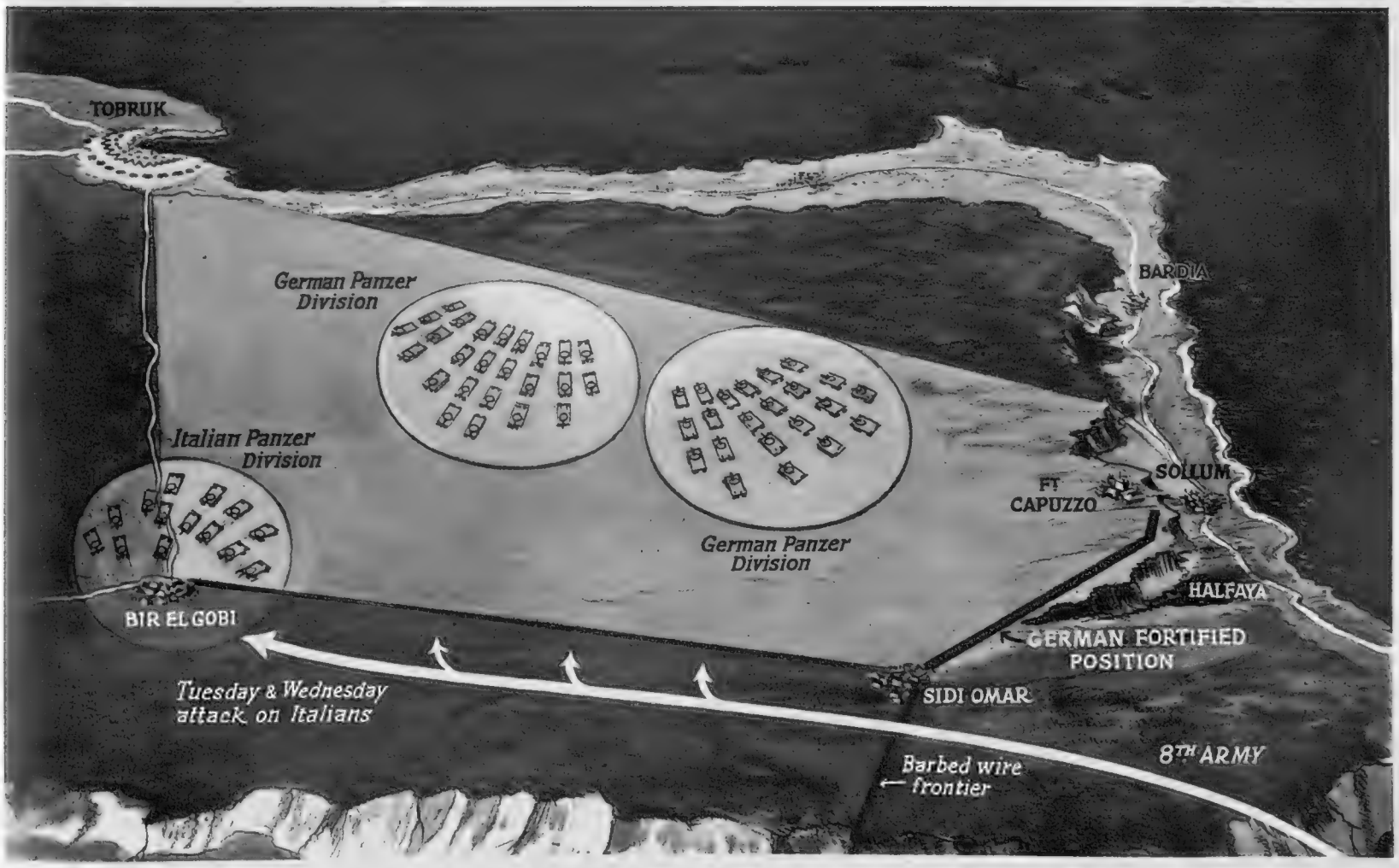
The complete disposition of the enemy at the opening of the battle is here indicated. From a point to the east of Sollum, down to Sidi Omar, the enemy's line was strongly held. It was to the south of this defensive area that the British break-through was made, whilst at the same time strong pressure was being exerted on the positions around Sidi Omar Nuovo to contain the Germans and Italians there. After the break-through at Fort Steferzen, the Eighth Army spread out fanwise. A swift advance was made to Bir El Gobi, where Italians were encountered; another column pushed up behind the Sidi Omar Nuovo line to Capuzzo; and still other forces drove up towards the main German positions between Gambut and Sidi Rezegh. Thus, at the opening of the battle, there were four main portions of the enemy separately encountered

BATTLE in the DESERT

A Complete and Connected Narrative of the Opening Stages of the Libyan Conflict, Covering the First Week of the Desert Campaign

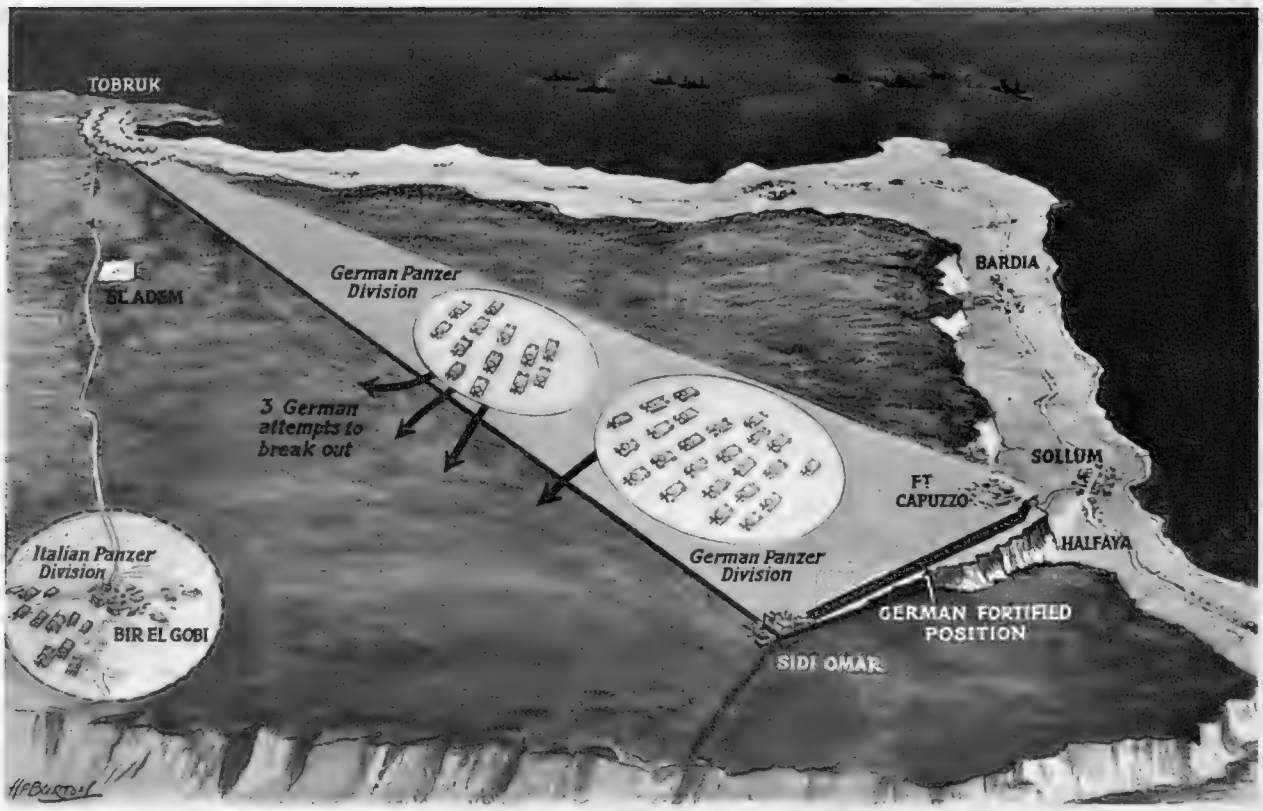
—Illustrated with a Special Series of Diagrams and Drawings

(See *drawing below*) The first advance by the British forces was made against the southern section of the "Triangle." After the encounter with the Italian force at Bir El Gobi, the four British columns were ready to advance to the attack at daybreak on Wednesday, the 19th. The Germans were taken by surprise; and the enemy's aerodromes were rushed and enemy personnel were captured before they had realised what was taking place. The northern part of this area had become heavy with rain; the southern portion was also wet, but had many drier areas. The general plan of attack was a push northward over the escarpment which overlooks the coastal area: as General Rommel's forces retreated and came closer together they were subjected to heavy bombing by the R.A.F., which throughout supported the land forces with the greatest vigour



2. THE FIRST "TRIANGLE," AS IT WAS REVEALED WHEN ACTION WAS JOINED ON WEDNESDAY, NOVEMBER 19. The area of conflict lay within a rough triangle formed by Halfaya—Sidi Omar—Bir El Gobi—Tobruk (*See* notes above on right)—*Drawing by H. P. Burton*

b



3. WEDNESDAY AND THURSDAY, NOVEMBER 19-20: As the conflict continued, the "triangle" narrowed, running down a corridor extending from Tobruk to Sidi Omar and Halfaya—*Drawing by H. P. Burton*

The Italian force at Bir el Gobi was enclosed and "by-passed" and some of them were soon taken prisoner. This division did not trouble the left flank of the advancing British force. The penetration by the British and Imperial forces along the eastern coastal area and the pushing up of the southern columns narrowed down the battle area in the manner shown: this was further emphasised when it was announced that German attempts to advance from a point 45 miles west of Fort Capuzzo were repulsed. Subsequently, General Rommel was able to draw off some of the Italian tanks from Bir el Gobi, but the main force was effectually bottled up there

BATTLE in the DESERT (cont.)

Tuesday, November 18.—At first light, the advance began from the coast to the east of Sollum as far south as Jarabub, 130 miles into the desert; the main Axis positions stretched from Halfaya to Sidi Omar, 30 miles to the south-west of Sollum.

Wednesday, November 19.—The British-Imperial forces, in heavy rain, penetrated over 50 miles into enemy territory. Little opposition was encountered.

"It is south of Sidi Omar that the real offensive is being launched."

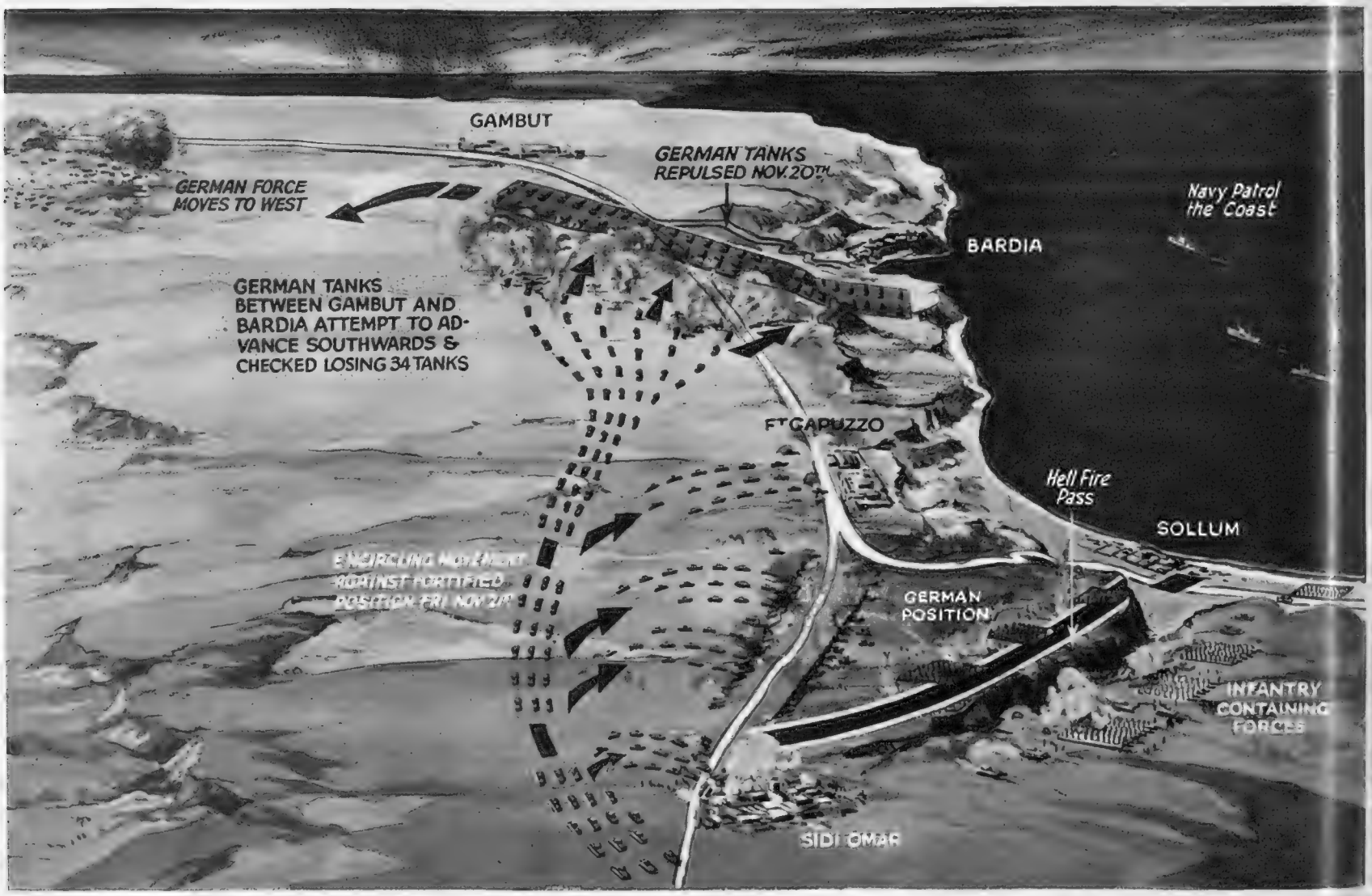
Two German Panzer divisions were reported to be spread along the coast between Tobruk and Bardia, and one Italian division was occupying a position south of Tobruk. Pressure was exerted against the enemy line Halfaya-Sidi Omar. British forces crossed the frontier to the south of this. German tanks encountered as they advanced southwards from the Bardia-Gambut area, and the enemy lost 26.

Thursday, November 20.—British forces swept forward in 36 hrs., in the direction of Sidi Rezegh, 75 miles north-west of Sidi Omar, and 10 miles from Tobruk, threatening to trap Axis forces within the Sollum-Bir el Gobi-Tobruk triangle.

Violent artillery duels on Tobruk front.

British tank units sighted German tanks in some strength 30 miles west of Capuzzo—the latter withdrew. Pressure

(*Continued below on left*)



4. HOW THE EASTERN AREA ALONG THE COAST WAS CLEANED UP DURING THURSDAY, NOVEMBER 20, AND FRIDAY, 21st, and the encirclement of the fortified line along the Egyptian frontier from Sollum to Sidi Omar was carried out—*Drawing by E. G. Lambert*

Two movements had now developed in the eastern area. A German mechanised force was occupying a line from Gambut to Bardia: this made several attempts to move in a south-westerly direction, but all were repulsed; in consequence, the force moved westwards as our easterly columns pushed up along the coast. On Friday, November 21, other forces began to curl round in the rear of the Halfaya-Sidi Omar line: the further development of this movement is shown in drawing **No. 5**

(*Continued from above on right*)

maintained on the enemy's Halfaya-Sidi Omar position. The village of Rezegh captured. Germans made three separate attacks 45 miles west of Fort Capuzzo in an effort to break out, but each time they were beaten back with heavy tank losses.

The battle in Cyrenaica was now joined in earnest. Following their rapid advance on the two previous days, Imperial armoured forces engaged German tanks in strength in the vicinity of Sidi Rezegh. After losing 70 tanks and 33 armoured cars, the German forces withdrew, leaving several hundred prisoners in our hands.

Between this area and the Sidi Omar region, a further British armoured formation came into action against another concentration of German tanks, which had advanced southwards from the Bardia-Gambut area. This action was later resumed, as a result of which the enemy was finally driven off in a north-easterly direction, losing a further 34 tanks. The Italian armoured division originally deployed in the Bir el Gobi area apparently exerted no influence on the battle.

Heavy pressure continued to be exerted on the enemy holding the defences between Halfaya and Sidi Omar. Meanwhile, Imperial forces, supported by further British tank formations, steadily gained ground northwards in a movement west of Sidi Omar.

In other parts of the huge battle arena strong British armoured and mechanised columns made a deep penetration in a number of directions, all threatening the enemy's main lines of communication.

Friday, November 21.—Fort Capuzzo captured by New Zealand forces.

Centred in the triangle between Fort. Capuzzo, Gabr Saleh (45 miles south-east of Tobruk) and Sidi

(*Continued on following page*)

5. THE ADVANCE ALONG THE COAST RIDGE, the capture of Capuzzo, the cliff-edge fortress, and the occupation of the town of Bardia (which was found to be abandoned by the Italians)—*Drawing by E. G. Lambert*

British columns advancing into the enemy's eastern territory captured Fort Capuzzo, its battered walls overlooking the sea suffering much further damage. British and Imperial forces advanced up the Tobruk road and debouched down the road to Bardia, which was found to have been deserted by the enemy. The force then made its way towards Gambut, where masses of enemy stores fell into our hands

(*Continued from previous page*)

Rezegh, a heavy tank battle developed over a wide area throughout Friday. Repeated attempts by the main German tank forces to break through to the west were defeated.

British troops from Tobruk, supported by tank forces which had gradually been introduced into the fortress over a period of many weeks by the Royal Navy, sallied out on Friday morning, with the object of joining hands with our troops holding Sidi Rezegh.

By midday, a heavily-defended enemy locality 3 miles south-east of the British perimeter defences, together with a smaller position nearby, had been captured; by nightfall, the Tobruk force was steadily making progress in face of heavy opposition.

In the frontier area, the British Imperial movement to encircle Axis forces holding a defended position between Halfaya and Sidi Omar developed satisfactorily throughout the day.

Saturday, November 22.—The centre of gravity of the main tank battle between British and German armoured forces was centred about Sidi Rezegh. Throughout the night, the battle continued without cessation.

New Zealand forces, in the face of exceptional climatic difficulties, continued their advance from initial positions west of Sidi Omar. Rapidly capturing Sidi Aziz and Capuzzo, these forces pushed on westwards around the Trigh-Capuzzo road. They reached positions south of Gambut, leaving a detachment to occupy Bardia, which was reported clear of the enemy.

Indian troops gradually extended the area of their penetration in the rear of the defensive positions between Halfaya and Sidi Omar. Continuing their advance against opposition, the British forces from Tobruk again captured many hundreds of prisoners, of which 50 per cent. were Germans.

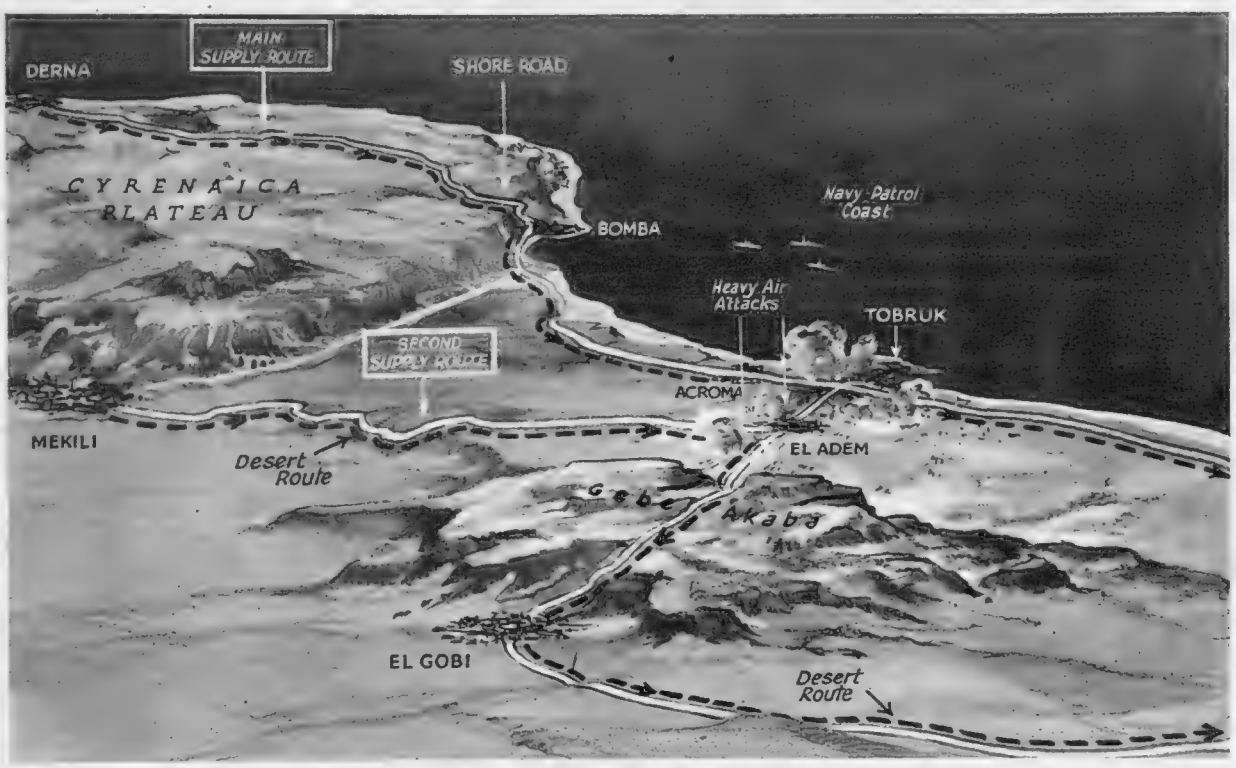
The number of prisoners captured by the British forces from Tobruk in their advance was 1,100. An Indian division reported to have captured a great number of Italians, with considerable equipment, at Sidi Omar.

Sunday, November 23.—Battle of tanks around Rezegh continued on Sunday morning.

New Zealand forces captured Gambut, an important supply base.

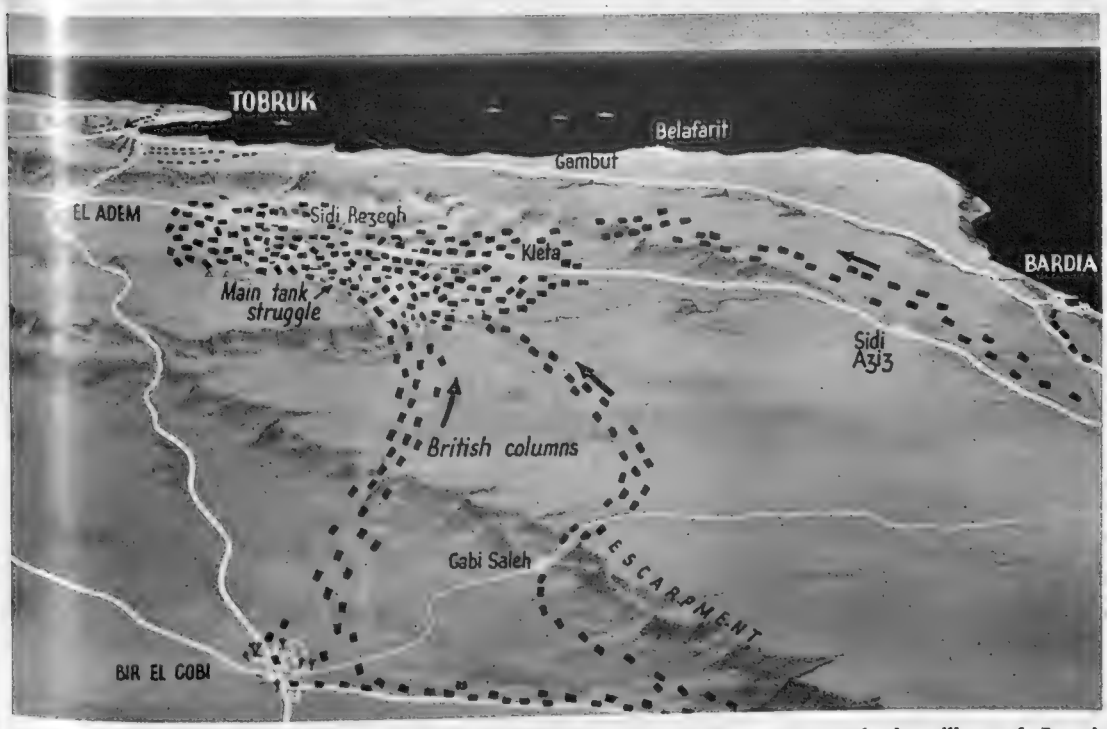
Tobruk forces consolidated their gains.

Desperate German counter-attack on Sunday. German prisoners taken at a desert aerodrome.



6. BREAKING THE LINES OF COMMUNICATION BETWEEN EL ADEM AND ACROMA: This was a very vital undertaking, and eventually the two main supply routes from the coast were effectively blocked—*Drawing by E. G. Lambert*

Whilst the main conflict was proceeding in the central area, other forces were threatening the enemy's supply lines by an attack on the El Adem-Acroma road, which links the two channels. One is the Derna coast road, and the other the road across the desert to Mechili. The upper road was attacked at several points and also heavily bombarded by the R.A.F. who fought the enemy in the air and strafed him on land throughout the conflict



7. FRIDAY, NOVEMBER 21, TO SATURDAY, NOVEMBER 22: The tank melee around the village of Rezegh developed into a fierce conflict (see also large drawing on following page)—*Drawing by L. Ashwell Wood*

Monday, November 24.—The southernmost British column, advancing by way of the Senussi college town of Jarabub, penetrated to Jalo and Augila, twin oases in the flat open desert country south of the main Cyrenaica plateau. The local garrisons surrendered. Both oases are connected with the north and west by desert car tracks.

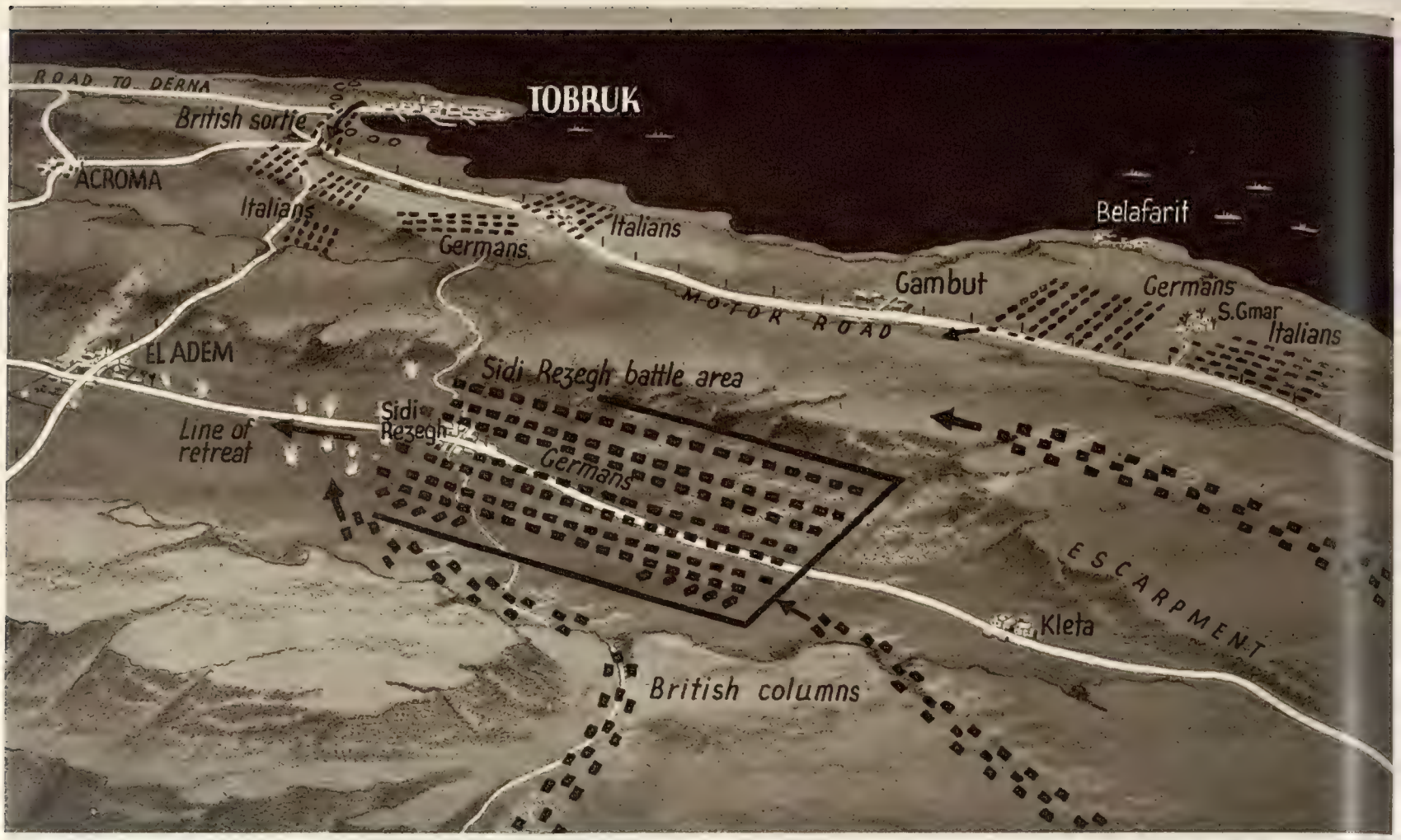
Infantry attacks were taking the place of the massed tank conflicts, as the crews of both sides were exhausted, and tank casualties had been numerous.

Big capture of stores in and around Gambut. British advanced thrust from Tobruk consolidated.

Tuesday, November 25.—A desperate attempt of the main German tank force to cut its way westwards frustrated by small force of South Africans and British-manned tanks.

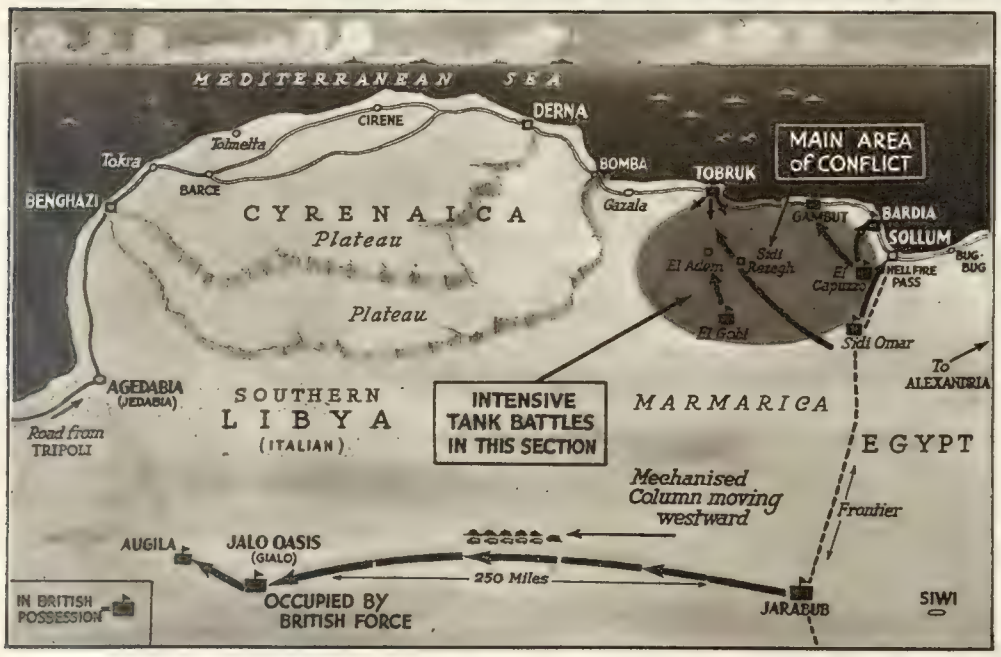
Heavy rain on coast area "was rather hampering the British forces," but quiet optimism was evident at Cairo, where it was held that the British troops were superior to the German, and that the British tank forces were equal to, and better than, the German.

On left—At this stage the German tanks, gathered into a mass around Rezegh, were attacked and replied with vigour. The conflict of steel against steel grew in intensity as the days wore on, the light 11-ton U.S. tanks inflicting severe losses on the heavier 17- and 22-tonners of the enemy. Their speed and manœuvrability were manifest, and they were fought with a fierce and determined courage by their British crews



8. SUNDAY, NOVEMBER 23-MONDAY, 24: THE ATTEMPT OF THE GERMANS TO BREAK THROUGH THE TOBRUK "GAP." The British columns push on, however, and head the Germans off towards El Adem, prior to the great tank battle at Sidi Rezegh—*Drawing by L. Ashwell Wood*

As the days wore on, the German desire to move westward became more and more evident. A determined attempt was made to force a way through the narrow gap which had developed between the Tobruk advanced positions and the southern and westerly British tank forces. A South African force, aided by British tanks, frustrated this movement in a hotly-fought desert encounter. It is not difficult to appreciate the eagerness of the Germans to move to the west: in the east they were menaced by advancing British troops, to whom they had been forced to abandon their supply dumps; in the south were other British forces to resist a drive in that direction. But in the west there was still the unclosed Tobruk "gap"—and beyond the gap lay the one road to safety and to replenishment of their fast-waning supplies



9. TUESDAY, NOVEMBER 25: The capture of Jalo and Augila far to the south-west, twin desert outposts, and their garrisons—*Drawing by W. Brownlee*

BATTLE in the DESERT—*(Continued)*

On left—
When the southernmost column passed Jarabub on November 18 and made off into the desert, it was not heard of again until it occupied the twin desert oases of Jalo and Augila: their local garrisons surrendered. Both these positions lie to the south of the main Cyrenaican plateau on the way to Agedabia and the coast road to Tripoli. From Augila a desert track leads to the sea north-westwards: any supplies or reinforcements from Tripoli must traverse this coast road. If it is possible to interpose a sufficient force at Agedabia, the connection between Tripoli and Benghazi (and General Rommel's force in Cyrenaica) will have been severed

On right—
THE NAVY'S PART IN THE LIBYAN BATTLE: Warships off the coast blow up the Halfaya dumps—*Drawing by Wm. McDowell*

It was a few hours before the Army started its advance into Cyrenaica that the Navy swung into action off the Libyan coast to prepare the way. As the Fleet reached the Sollum area, a big force of cruisers, destroyers and other light naval forces was suddenly ordered inshore. As they swung into line there was a belch of flame from the leading ship. Her guns had hurled the first of hundreds of shells that were to be poured into the enemy positions at Sollum and Halfaya ("Hellfire Pass") in the next few hours. Up and down past their objectives the bombarding forces steamed, the rain of projectiles never failing for a minute. At Halfaya, where the Nazis had built up large dumps of ammunition and supplies and had concentrated thousands of troops, the damage is believed to have been particularly severe. Several of the ammunition dumps are thought to have been destroyed. Certainly a series of violent explosions followed the bombardment

THE TANK BATTLES IN THE DESERT: An incident when the enemy were surprised and engaged by our own tanks at close range at night. During this engagement the tank commanders had their hatches open during the conflict: this would not have been possible during a daylight encounter—*Drawing by Roland Davies*

"The battle now being fought is such as Jules Verne and H. G. Wells have described," writes a Special Correspondent with the Australian Forces in the desert. "It is a war of machines over this desert waste. The tanks, like prehistoric monsters, seek each other out to fight to the death. From far away guns hurl shells, while planes rain down bombs. What life there is in the vital sectors is hidden behind steel plates." The tank battles occur, as a rule, at an average range of 300 to 800 yards, though often as much as 1,200 yards, over a vast area. They are the nearest thing ever seen on land to the orthodox naval battle. The tanks move and manœuvre, firing all the while, until one side has lost so large a proportion of its total that the remainder make off. That is what happened in the instance depicted here. After receiving many direct hits the enemy withdrew, but owing to the darkness prolonged pursuit by our forces was rendered impossible

THE BRITISH AIR OFFENSIVE OVER THE WESTERN DESERT: Types of the American-built planes which the R.A.F. are using in the present campaign in Cyrenaica
—*Drawing by Roland Davies*

For the first time in battle against the Germans, it has been stated that our own Air Force is as strong, and stronger, than the enemy's. The work they have performed in the desert operations has been invaluable: only one or two phases of this are indicated in the above drawing. The town in the background is Benghazi, one of the principal supply bases for General Rommel's forces to the eastwards. American-built Maryland bombers in this picture are seen attacking road communications outside the town, whilst others are bombing an aerodrome, to prevent enemy aircraft taking off to assist the tank divisions. Curtiss Tomahawk fighters (also American-built) are attacking the Messerschmitts and Italian fighter aircraft which are attempting to prevent our bombing operations. American-built tanks are playing their part in our campaign in Libya, as also are American-built aircraft

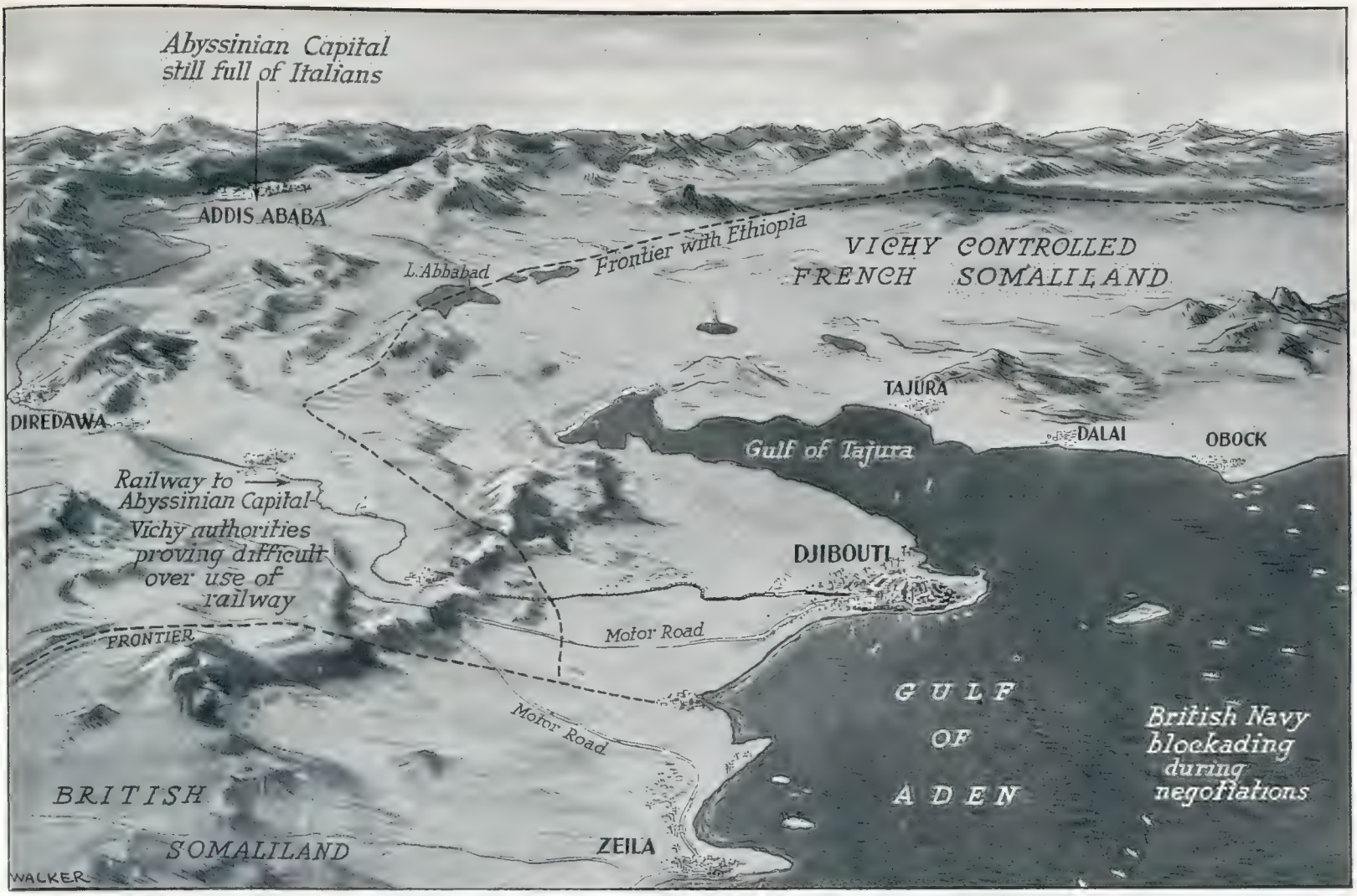
AMERICAN TANKS IN ACTION AGAINST GENERAL ROMMEL'S PANZERS IN LIBYA: One of the U.S. tanks which have played so large a part in the actions in the desert. Each of these has been given a name, and some of them are being operated by men of a famous Irish regiment

BATTLE in the DESERT *(Continued)*

As soon as the news of the great offensive in Libya was made public, it was disclosed that American-built tanks were being employed very largely by our armoured columns. These tanks have been described as of two types—11 tons and 23 tons. Their speed is considerable, their manœuvrability excellent, and despite their comparative lightness their armament is sufficiently powerful to engage the much heavier German tanks. Two excellent impressions of these American-built tanks are reproduced here; together with another armoured vehicle designed for a different purpose

"CAMERONIAN" PREPARES FOR ACTION: The hatch in front of the commander's position is raised. This would, of course, be closed in action. Behind the turret is a machine-gun for anti-aircraft operations

AN R.A.F. ARMOURED CAR OR "SHELLBACK": This is *not* a tank, but one of the armoured vehicles operated by the R.A.F. for the defence of forward aerodromes in the desert and other dangerous tasks. Not only are there twin machine-guns in the turret amidships, but also a much heavier cannon-gun firing forward. The whole vehicle is protected by strong armour-plating



THE POSITION OF DJIBOUTI (CAPITAL OF FRENCH SOMALILAND) AND ITS RELATION TO ADDIS ABABA—*Drawing by E. Walker*

Lying on a promontory jutting out into the Gulf of Aden, Djibouti is the eastern terminus of the railway to the Abyssinian capital of Addis Ababa. The Vichy authorities have proved very stubborn over facilities of supply to Addis : offers have been made to them from time to time by the British, but they still prove unfriendly. Therefore the Royal Navy have imposed a blockade of Djibouti until reasonable terms can be arrived at

WHAT IS GOING TO HAPPEN AT DJIBOUTI?

The New Vichy Governor is Bitterly Anti-British, but Surrender is Regarded as Inevitable in the Near Future

FRENCH SOMALILAND has had a difficult position to maintain throughout the present war. She started it, in September 1939, as an ally of Great Britain (who occupied British Somaliland adjoining) and on terms of guarded friendship with Italy, whose African possessions of Abyssinia and Eritrea bounded her on two sides of her territory. Early in June 1940, however, Italy had become an enemy, and bridges were destroyed on the frontier. The French troops were ready for any conflict with the Italians, and were consequently amazed when, about ten days later, they were informed that the war was ended—Italy was no longer a foe, but a conqueror ; while the British, formerly their allies, had to be regarded with the deepest suspicion !

Then followed the period of Italian supremacy and swagger, and the apparent victory over the British, who evacuated British Somaliland. But with January of this year there came another turn of the wheel, following on the British successes in Libya and the entry into Eritrea, and (in the following months) on the increasing pressure upon the Italians in Abyssinia.

The surrender of France on June 17, 1940, was a great blow to the French Colonial Empire in Africa, which had not been allowed to take part in the struggle against Nazi Germany. The people in French Somaliland were puzzled and uncertain of their position, incredulous in particular that France could have surrendered to Italy. General Legentilhomme, the Governor, was definitely pro-Ally, but orders from the Vichy Government obliged him to receive the Italian armistice delegation, though his attitude was frigid and obstructive to the victor's demands.

By the terms of the armistice Italy was to have " full and constant right to use the port of Djibouti with all its equipment, together with the French section of the Djibouti-Addis Ababa railway." Owing to his lack of collaboration, General Legentilhomme was soon superseded by a Vichy Governor ready to carry out orders. Instead of returning to France, however, Legentilhomme joined de Gaulle, and subsequently took part in the conquest of Syria.

In September of last year the Italian Armistice Commission arrived in Djibouti, resplendent in full-dress uniforms ; but their reception, apart from the Governor and Civil Servants, dependent upon Vichy for their salaries, was far from warm. A great change was noticeable in the Italians a few months later as the British swept over Libya, capturing the main part of the Italian Army, and then prepared for the invasion of Abyssinia. The fine uniforms disappeared, most of the officers were recalled to Abyssinia, and those who remained went about in mufti.

And now French Somaliland was once again faced by the British, who urged the Governor to join the Free French, otherwise both land and sea frontiers would suffer a severe blockade. Negotiations went on throughout last June, when General Wavell offered to evacuate women and children to Madagascar and in the meantime to supply them with essential food-stuffs. A Vichy communiqué, on a characteristically pathetic note, stated : " Having had no sea contact with the mother country for some months, French Somaliland finds itself isolated territorially, militarily, and economically."

Yet, in spite of the sad condition of the colony, the Governor would not yield to necessity, largely because General Legentilhomme was representing the British and Free French. He continued to behave in a manner similar to that of General Dentz in Syria, allowing the Italians free use of the territory. The talks continued, but no decision was reached. Vichy protested against the blockade, asserting that Somaliland was absolutely neutral ; but reliance could not be placed on this, knowing how Vichy would react to German pressure if submarines were to slip into the harbour of Djibouti. An offer is said to have been put forward by the French, suggesting international control (whatever that may mean) of harbour and railway, provided that the French remained in occupation and the population was fed. The British have shown great patience, as in all their dealings with France, have sent in milk for the children, but something definite must be decided upon soon.

A new French Governor, M. Noualhetas, fresh from Vichy, arrived in August, determined to hold out as long as possible. He is said to be opposed to the Free French to the point of bitterness, and, in spite of the food scarcity, he will not agree to British terms. There has been for some months a distinct shortage of food but no starvation, as quick-sailing dhows run through the blockade, bringing in cargoes of grain ; the naval blockade lacks fast motor-boats to chase the dhows. A French submarine has also brought regular food supplies from Madagascar.

It is obvious that the present state of affairs cannot continue much longer, and even Vichy sees that French Somaliland must go the way of Syria. Stories have been reported by Vichy that the British have actually attacked the colony, but there has been no truth in this. General Cunningham, in fact, some little time ago sent a letter reiterating the declaration that Great Britain has no territorial ambitions, and on this basis Vichy has announced that negotiations will begin over the right to use the port of Djibouti and the railway. Italian ships are still in the harbour, but there is no fear of their escaping, as there is no fuel for them.

THE NEW BRITISH G.O.C. OF THE ERITREA AREA : With the creation of a new East African Command, Eritrea has now become a British area. The new G.O.C. of this is Major-General R. A. Savory, D.S.O., M.C., who, as Brigadier of Indian troops, fought in the Western Desert and in Eritrea. He is here seen (on the left) on a tour of inspection of a park of captured Italian guns

The NEW "BURMA ROAD" will be a RAILWAY

This is Now being Built to Connect Up Lashio in Burma with Kunming and Chungking in China

SINCE the unwarranted invasion of China by the Japanese some years ago, the Burma Road has become familiar to all. Along this road has flowed a never-ending stream of war supplies for the Chinese Nationalists, from the railhead at Lashio in Burma to the railhead at Kunming, south of the capital of Chungking. But, whilst this traffic has been proceeding steadily along the Burma Road proper, a new route has been planned: this is the railway, now partially completed, to link up the two railheads across Burma and Yunnan. On April 1, Mr. Amery, Secretary for Burma, announced in the House of Commons details of the scheme; and in October of this year it was stated that the line had been completed as far as Yun, 124 miles from the Burmese border.

The route depicted in the accompanying drawing by Mr. Lambert was first surveyed at the end of the nineteenth century by British engineers. The scheme for building

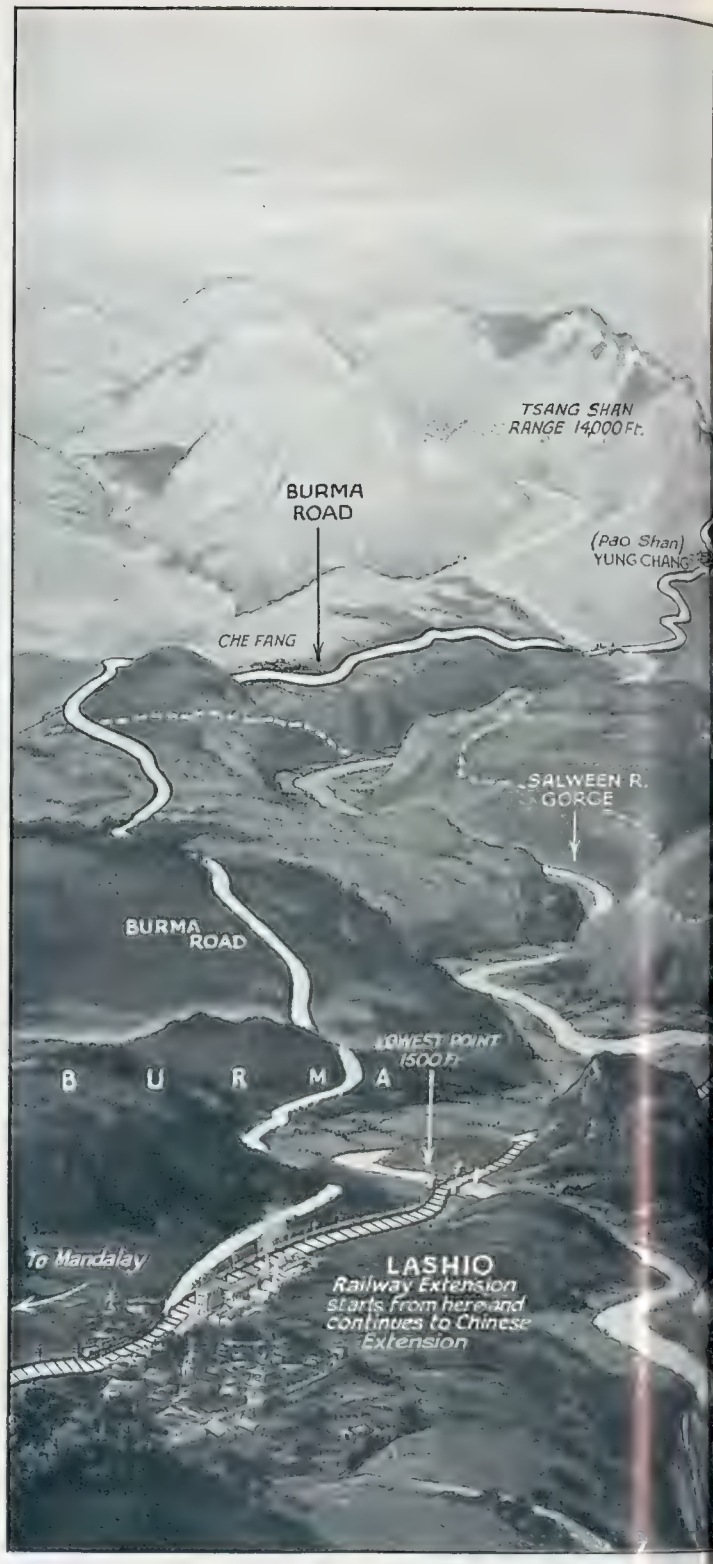
HOW THE BURMA ROAD TWISTS AND TURNS THROUGH THE MOUNTAINS AND VALLEYS: At the present moment, the Road is the sole lifeline possessed by China in her years-long struggle against Japanese aggression. Over it flow the munitions and war supplies from America and Britain, from Lashio in Burma to Kunming in China, and thence on to the Nationalist capital at Chungking. Neither heavy rains nor concentrated bombing attacks by the Japanese have yet been allowed to interfere with the flow from the outside world to the heart of old China

a railway lapsed until it became imperative for American and British aid to reach China promptly. The Burma Road has hitherto fulfilled this function; but communications and transport of war material is slow; and the threat of Japanese bombing very real. Hence the present railway construction. The first half of the route lies to the south of the Road, the second half follows the Road closely right up to Kunming itself.

How urgent is the need for a railway line is shown by the fact that it costs no less than £100 to convey a ton of goods from Rangoon to Chungking by road, and that 40 per cent. of a lorry's cargo consists of the petrol necessary to convey itself there and back!

By the existing railway system from Rangoon to Mandalay, the distance is 386 miles; then by a single-track line from Mandalay to Lashio is another 180 miles. This section was only completed in 1903. The present extension decided upon by the British Government in Burma, is being built eastward from Lashio for 34 miles. Here it crosses the Irrawaddy-Salween watershed, and then follows the Nam Kyet River for 21 miles, down to the Salween. For 40 miles the line continues in the gorge of this immense river until it reaches its confluence with the Nam Ting River; the Burmese-Yunnan frontier is crossed 15 miles up this tributary, the route then continuing due east for another 100 miles to a low pass over the Salween-Mekong watershed This

(Continued below on right)



THE NEW RAILWAY TO KUNMING W

Lashio in Burma is the starting-point of th
From here the rail extension has already re
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Mekong Gorge—very difficult country, where
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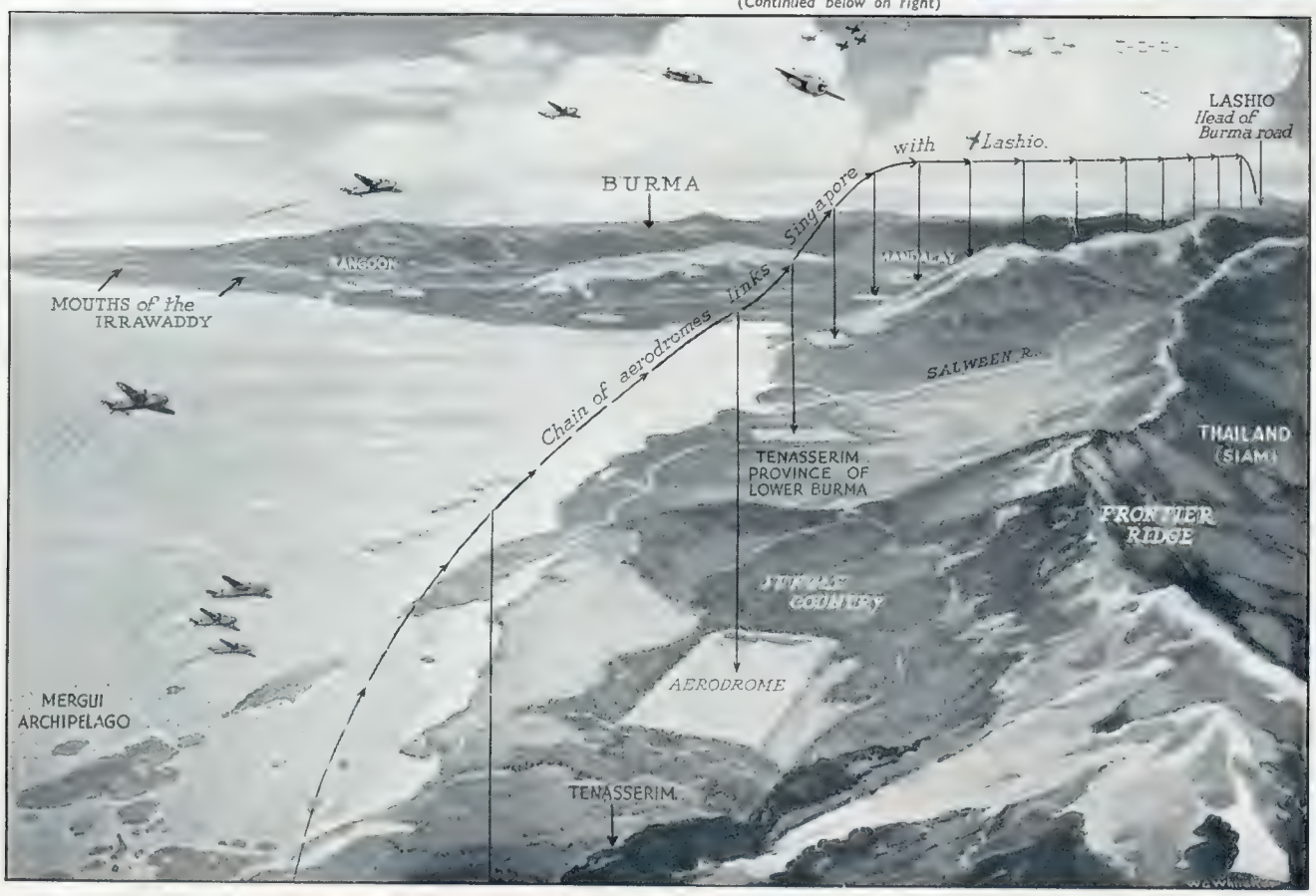


On left—
AIR DEFENCE AGAINST AGGRESSION FROM THE EAST IS NOW VERY STRONG IN BURMA: A chain of aerodromes links Lashio with Singapore through the southernmost Burmese province of Tenasserim—*Drawing by W. G. Whitaker*

Burma is now equipped for both defensive and offensive air action. During the past few months thousands of men and women from the Shan States mountains have been constructing, from the jungle, aerodromes midway between the coast and the frontiers of China and Thailand, stretching from Lashio in Upper Burma to the Mergui Archipelago in the south. These aerodromes are equipped with all-weather runways, suitable for the take-off of fully-loaded heavy bombers. Plant for the maintenance and repair of aircraft has been provided, the pilots and ground crews live in comfortable quarters, and fuel, bombs, and ammunition have been stored to meet all possible needs. The aerodromes are so located that they give Burma the maximum protection against air and land attack from any quarter, and simultaneously give the R.A.F. advance bases from which to operate bomber squadrons

H FLANKS THE BURMA ROAD : At the moment the line has been completed from Lashio to Yun, 124 miles into Chinese territory. From Kunming the Chinese are pushing out to join up with the Burmese section—*Drawing by E. G. Lambert*

urma Road : it is also the starting-point of the new railway line into China. d out to Yun, 124 miles inside Chinese territory, pursuing a course well to h section, 115 miles in length, has been constructed with British capital. The ter at Kunlung to the junction with the Burma Road at Siangyun. From the o follow the existing Burma Road : the Chinese are pushing westwards from the Yunnan portion. Altogether, the total length when complete will be t point along the route is just to the east of Lashio, the highest point lies lway already constructed traverses the Nam Ting Gorge and later the famous line rises nearly 4,000 ft. in 60 miles ! When the railway is finally completed onger be dependent on the lorry transports of the Burma Road

(Continued from above on left)

pass is an obligatory point for any railway, as at no other place is there any means of traversing the extremely difficult country intervening.

For the next 100 miles comes the most difficult section of all, for it includes the famous Mekong Gorge, of which an impression is given in the smaller drawing below on the right; from Helsong up to Mekong, at the Red River watershed, the railway rises 3,800 ft. in 60 miles!

The Burma Road is joined by the railway at Siangyun: 70 miles to the east of the latter is the highest point—8,000 ft. above sea-level. From Siangyun to Kunming, road and railway march together; and at the latter place junction is made with the already existing line to the Chinese capital at Chungking.

The principal distances involved in connection with the new railway are as follows:

Lashio to the Burmese border, 110 miles;
Border to Siangyun, 295 miles;
Siangyun to Kunming, 275 miles.

This gives a total length of 680 miles from railhead to railhead. Throughout, the line is to be of 1-metre gauge. The Chinese have been working at their end for some time, excavating and levelling with the great bodies of native labour they have at their command.

THE DIFFICULTIES OF THE NEW "BURMA ROAD" RAILWAY : What the famous Mekong Gorge really looks like, with cliff walls towering up hundreds of feet on both sides—*Drawing by Percy Home*

On right—
This is an impression of the Gorge of the River Mekong, probably the most impressive in Yunnan. It is through territory such as this that the new railway will have to pass in places. It can be well understood therefore that the task of the engineers is no easy one ! The Burma Road itself passes through scores of similar passes on the long route from Lashio to Kunming

GREAT AIR JOURNEYS THAT STEER THE WAR

The Development of the Long-distance Aeroplane has Made Possible Many Diplomatic Contacts and Movements in All Parts of the Globe. Some of the Journeys Already Achieved During the War are Here Described

By FERDINAND TUOHY

ONE day in the winter of 1870-71 the Prussians on Mt. Valérian overlooking besieged Paris were flabbergasted to see a balloon rise from the surrounded French capital. There is a famous picture in existence, showing Gambetta waving farewell from the basket. "*Adieu!*" yes! For few of the onlookers expected that the intrepid trio would escape death, much less reach Tours, 150 miles away. But Gambetta reached Tours, and there galvanised into being the valiant Army of the Loire whose leaders were Generals Chanzy and Faidherbe—the latter a man of Lille, like de Gaulle—and the honour, the soul and future of France were preserved.

Seventy years later Tours was again the scene of an arrival by air in an attempt to galvanise the French to resistance. But this time the arrival was a foreigner, and Winston Churchill was unable to counter the influence being exerted on Reynaud by Hélène de Portes. Yet he managed to rescue another Faidherbe for the cause of France, while at the same time doing something else not so apparent.

That June day, flying by leaders engaged on the conduct of the war really began. Prior to then, high officers had used the far-flung skyways; leading Poles, including General Sikorski, had escaped by air; the splendidly reliable Clippers had set the mode of future world travel; but it was left to some fantastic flights in June 1940 to ring or wing in a novelty in war-waging.

Mr. Alexander flew to Bordeaux in an effort to hold Darlan to honourable attitude. General de Gaulle flew to London, back to Bordeaux, finally to London again to found Free France. Lord Gort and Mr. Duff Cooper were held almost captives on alighting at Casablanca in an attempt to establish Daladier and Mandel or to take them off.

A new job was henceforth added to the duties of Allied pilots: that of carrying leading war figures across oceans and continents. And it was to be a big job, one necessitating minute preparation and care. That Heinkels have not taken a toll of these machines is not for want of trying. The ways and means of these flights are held secret, how enemy interception is circumvented by feints and zigzags and stratospheric passages, and it is well that this should be so in view of the manner in which the conduct of this war has been stimulated by the advent of great air journeys. It is a work of grand liaison by which the Allies, with most of the world behind and about them, stand to profit more than their centralised enemies.

Contacts of the highest importance have been rendered possible which otherwise either would never have come about or would have been so delayed as sensibly to reduce their value. Military leaders have been able to fly all over their vast commands, and even to come to confer in London from thousands of miles away. And how infinitely more can be done in an hour's face-to-face exchange than by all the cabling and despatches. Men vital to the conduct of the war are present one day in Washington, the next in London. One day in Singapore, the next at Canberra. One day in London, and two or perhaps three days later, in Moscow or Cairo.

Take this recent episode of the missing Monckton-Litvinov aircraft. Supposing an important party had wanted, in the last war, to get from deepest Russia to Egypt and America? They must have taken all of five weeks. It took me nearly three weeks of constant travel to return from Lemberg to London in May 1915. I had to describe a vast sweep: Kiev, Moscow, Petrograd, Haparanda (Lapp fringe), Stockholm, Bergen, Newcastle. After doing that sort of thing, a Litvinov and a Steinhardt of that epoch would have had to push on across the Atlantic, possibly for another two weeks, before reporting at Washington.

And what would have been the odyssey of a Monckton and a Quentin Reynolds of that vintage, aiming to reach the Middle East from deep in Russia? They would have had the choice of the above route to London and thence onwards via Taranto to Alexandria; or they could have risked the Caspian Sea and slowly and perilously gone forward through Persia to Basra; and even then they would have had a further ten days steaming round to Suez. I had to go quickly from Bagdad to Salonika in 1918 and it took twenty-eight days, and the R.T.O.s weren't being uppish, either—in fact, they rushed me far too quickly through Shepheard's.

The incidents of the Monckton flight showed how we have come to take for granted crucial air journeys over some of the world's worst surfaces. Held up at Baku for three days, this party had to take to the Caspian Sea and finally risk a 200-miles race against a snowstorm. Litvinov was hastening to America in order to be on hand during the Japanese talks; Monckton was making tracks for Cairo in order to influence our publicity during the Battle of Cyrenaica.

But more important than their hold-up was the treatment of Litvinov at Teheran. Sir Walter was able to pay high tribute to the Soviet pilots who had flown the party from Kuibishev; the Russian Ambassador to Washington was kept out of a British machine in which a Press Attaché and six other British set off.

This is the kind of nonsense, like Christopher Stone's greetings to Italy's majestic dwarf, that feeds suspicion in Britain and out of it. To such as Stone I would say: "You announce Victor-Emmanuel to be a 'harmless little soul.' Count Sforza, Italy's most valuable exile, would indict this King for having given Mussolini power in the first place when there was no need to do so; and secondly, for his allowing the House of Savoy to prop treacherous Fascism from start to finish. If your acquaintance with international affairs is such as you would have us believe, stick to your records and entertaining." There are to be "no scalps" at the B.B.C., one hears. No; there never are "scalps" in this country, and that's the worst of it. People in official or demi-official positions do things which in civil life would get them the instant sack—such as leaving secret plans in motor-cars—and all the action taken is to rearrange jobs. Even a mild reprimand might hurt their feelings. The British Airways officials who hadn't it in them to push Litvinov into the plane and damn the consequences were no doubt let down by the Priorities Committee of the Air Ministry, which is supposed to rule intelligently who shall and who shall not fly in all these machines, but the judgment of men on the spot will be called for in the future, and we have got men capable of expressing it.

Each of these wartime flights is a gamble, whose ending can modify the course of the struggle. Supposing the Monckton-Litvinov flight had ended as Huntziger's did? This Breton, the best of Vichy's Little Four, was sent to size up French North Africa's future role. He is said to have thrown out his papers in the last moment of his life. But should one do that in the last extremity? Certainly not always. Maybe the best of these air travellers are the Beaverbrooks who bring along such a lot inside their heads. And the Wavells. Here is a soldier who has made war history by his flights. In Abyssinia one day, in the Western Desert the next. And, since he has moved to India, positively all over the place in magic-carpet style: Bagdad, Teheran, Cairo, London, Delhi, Singapore.

Touching wood, we have had but two major losses so far in this flying—Air Marshal Boyd in the Mediterranean, and the head of our Purchasing Board in the U.S. But young King Peter's was a narrow shave. As for the enemy, they removed their own Balbo, returning to Tobruk from Rome; and they unwittingly shot down their friend Chiappe, about to take over in Syria. Hess, who surely hoped to regain his Führer, was a third casualty. Usually, Axis leaders fly only within the confines of their temporarily held-down Continent. Sabura Kurusu is the first Axis personage to air-span an ocean and a continent.

The new air travel has been invaluable in four principal spheres: in linking us at 200 m.p.h. with the Empire, with the United States, with Russia, and with Africa.

Mr. Menzies pioneered with a whirlwind tour which took him across America in addition to Asia, Africa, and part of Europe. Since then Mr. Mackenzie King and Mr. Fraser have followed up, and game Field-Marshal Smuts flies the length of Africa when occasion demands. Hughes, Massey, Borden and Smuts got to London in the last war, but either had to stay or hardly hope to return here.

The innovation of sending Ministers on Imperial missions reposes wholly on air transport, as Mr. Duff Cooper's globe-girdling testifies. He must be nearly the record-holder, though for tough and intensive flying, Mr. Averell Harriman, once again among us, takes some beating.

Mr. Hopkins and Mr. Wendell Willkie were pioneers in bringing Washington and London to one another's doorsteps in regard to war-planning and inspiration. Now the Atlantic flight is regularly made by Ambassadors—Mr. Winant, Lord Halifax. The Foreign Office profits notably from world air travel, as when Sir Stafford Cripps was able to report verbally about Russia this summer, and fly back to his post. Mr. Eden himself flew all over the Middle East early this year.

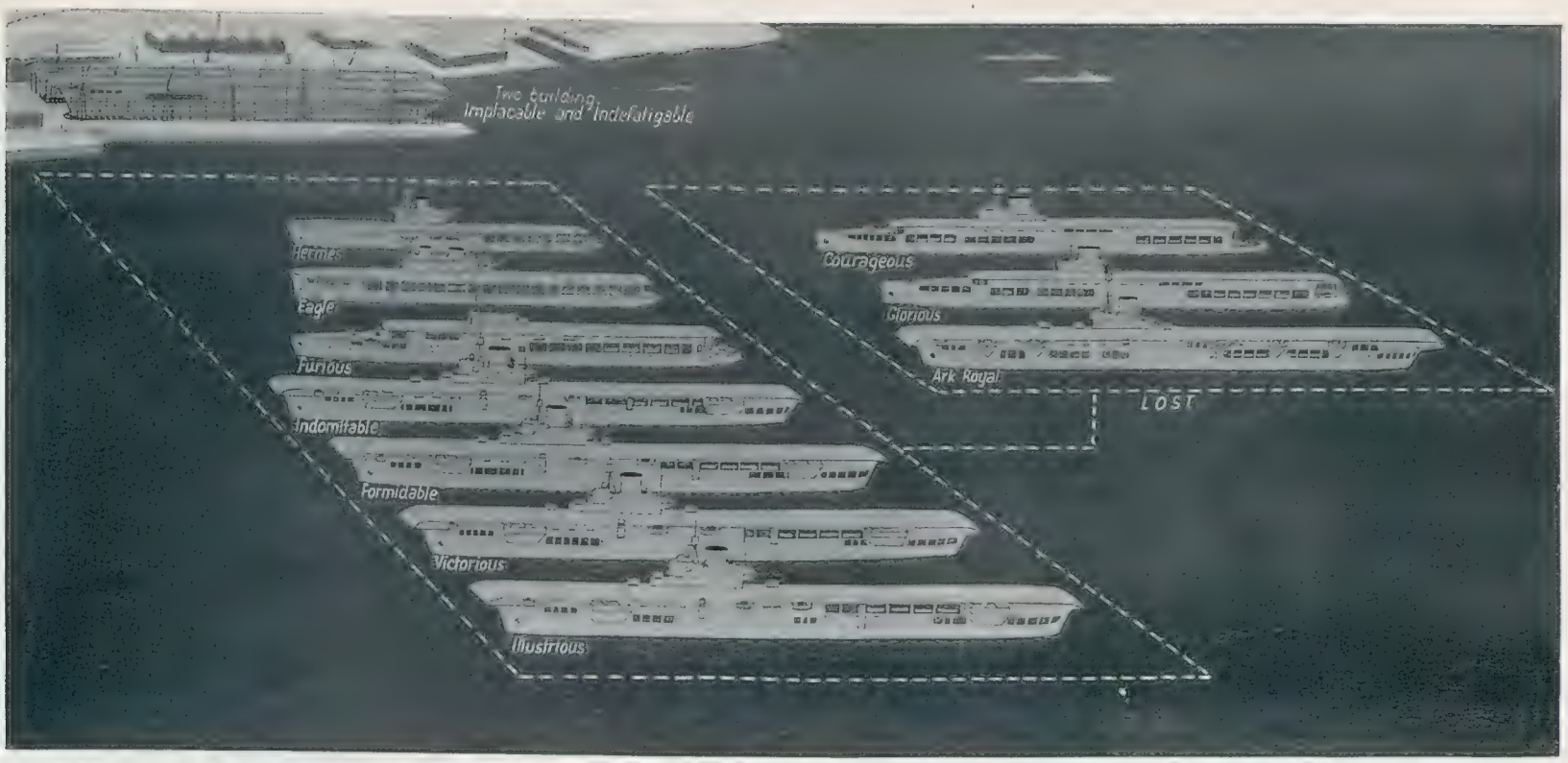
Turning to Russia, Stalin's Military Mission flew here right at the start of Hitler's onslaught, and we responded with General Mason-Macfarlane's. I think again of the time that would have taken in 1914-16, and of the risk Lord Kitchener ran, thrown in. Not that Mr. Churchill and Lord Beaverbrook didn't take a kindred risk in their sea journeys from Iceland and to Archangel. What journeyings in this war!

The more places in which Allied war figures can set foot, the better.

The flying to, and via, Africa represents an increasing source of strength. Sir Robert Brooke-Popham, who now flies in all directions from Singapore, was a pioneer, and to-day one route alone, via Lagos and Chad to Cairo and beyond, is making new aerial history and emphasises the service rendered by General de Gaulle in retaining wide stretches of Africa for Free France. The General has himself extensively used the sky in maintaining his grip. General Sikorski has just emulated him by flying to Polish troops in Tobruk and Russia, and to conference with Stalin; a valuable realist, Sikorski.

Soon the Clippers will be berthing in Irish and British ports, and flights like Mr. Attlee's to New York's I.L.O. meeting will be undertaken much as train journeys to Scotland. As the war advances, the sweeping air journey vital to its conduct will become a commonplace. To salute pilots and crews who make it all possible is only to do what every prominent passenger does at the end of each journey.

MR. DUFF COOPER IS MAKING EXTENSIVE USE OF AEROPLANES FOR HIS JOURNEYINGS IN THE FAR EAST: The British Minister of State and Chancellor of the Duchy of Lancaster, who is now representing the Cabinet in the East, recently arrived in Singapore on a special mission. This picture was taken as he left the Pan-Pacific Clipper to be met by Singapore notabilities. On the right is Sir Robert Brooke-Popham, the Commander-in-Chief in the Far East



BRITAIN'S STRENGTH IN AIRCRAFT-CARRIERS AND THE THREE VESSELS WE HAVE LOST: Six carriers are now in commission and three more are building (if not already completed). Against these we have lost "Courageous," "Glorious" and "Ark Royal"—*Drawing by L. Ashwell Wood*

THE BRITISH AIRCRAFT-CARRIER "FURIOUS" IN THE UNITED STATES: This picture was released for publication by the U.S. Fourth Naval District on Tuesday, October 14. It shows H.M.S. *Furious* at a dock at the Philadelphia Navy Yard undergoing repairs. Note the vessel's effective camouflage. *Furious* is one of the older carriers of the Royal Navy. She was built as a cruiser and completed in 1917. Between November 1917 and March 1918 she was rebuilt, her total cost being £6,000,000

THE AIRCRAFT-CARRIERS of the ROYAL NAVY

The recent loss of the *Ark Royal* has once again drawn attention to the aircraft-carriers. Since the outbreak of the present war we have lost three of these vessels—*Ark Royal*, in the Western Mediterranean, *Courageous*, torpedoed in September 1939, and *Glorious*, sunk off North Norway in June 1940. Despite these grievous losses, the aircraft-carrier force is as strong as ever it was. There are now six vessels of this type, including the three ships of the Illustrious class: these had a length of 753 ft., a displacement of 23,000 tons, a speed of 30 knots and a complement of 1,600. The *Victorious*, *Illustrious* and *Formidable* are definitely known to be in commission, and the other was due for completion in 1940, so that it too may now be on active service. The other two vessels—*Implacable* and *Indefatigable*—must also be nearly ready for service

A FAIREY FULMAR BEING FLAGGED OFF FROM THE DECK OF H.M.S. "VICTORIOUS": This aircraft-carrier is of the Illustrious class, and is one of the newest additions to the Royal Navy

H.M.S. "VICTORIOUS," 23,000-ton aircraft-carrier, AT SEA: The four vessels of this class are *Illustrious*, *Victorious*, *Formidable* and *Indomitable*. All are of 23,000 tons and were due for completion in 1940. Three are now in service with the Royal Navy, leaving *Indomitable*, *Implacable* and *Indefatigable* still to be added to the *Navy List*. The new additions provide the British Navy with a very powerful force of these sea-borne aerodromes

THE WAR ON THE EASTERN FRONT—I

THE SOVIET ICE-BREAKER "YOSIF STALIN" AT WORK, CLEARING A PASSAGE FOR SUPPLY SHIPS—*Drawing by Wm. McDowell*

A party of men usually walk on the ice ahead of the ship to examine the ice and signal to the ship the best line of approach. If necessary, when enormous ice-blocks pile up, dynamite is used to loosen them. Russia has the biggest fleet of ice-breakers in the world. They are especially powerful craft, built enormously strong to withstand the pressure of the ice as well as the heavy work they engage in. Their hulls are curiously shaped in section, being of a form which is designed to resist being "nipped." If frozen in the ice, pressure tends to "squeeze" the hull upwards and not crush the side in, as would happen to a ship of orthodox design. The bow is specially strengthened, and the forefoot is shaped so as to run upward on the ice surface, until the downward weight of the hull breaks through. In addition to the twin screws, a third propeller is fitted under the bows, to assist in manœuvring as well as to thrust aside the broken ice. The *Stalin* was completed at Leningrad in 1939: she has a displacement of 11,000 tons, a length of 351 ft., and a breadth of 75 ft. She is propelled by three sets of triple-expansion engines, with Diesel electric propulsion for cruising speeds. The total horse-power is 10,050 and she has a speed of 15½ knots. She carries three aircraft and a catapult for launching them

The ICE-BREAKERS of the SOVIET FLEET

By DOUGLAS GLEN

WHILST Germany faces the immensely difficult task of maintaining during the winter her huge armies on the Eastern Front in fit condition to continue the offensive, the same intense cold presents problems of a different kind to the Russians. They have to keep their rivers open, their ice-bound ports in the north and in the Caspian navigable, and ensure their sea-routes.

They have now a considerable fleet of ice-breakers at work, powerful vessels which are capable of doing much more than merely force their way through thick ice. The latest types, such as *Lenin*, *Y. Stalin* and *V. Molotov*, aided by the latest scientific ice-cutting devices, can cleave a passage through Russia's frozen waters, and leave them clear for convoys of freight and passenger ships.

In 1934, the Soviet Government, realising that the development of the Soviet Arctic depends upon the through route from Murmansk and Archangel to Vladivostok, and upon the uninterrupted use of her river-ways, initiated a programme of construction which has virtually led to the freeing of their sea communications all the year round. At that time Russia had only four ice-breakers, and five ice-forcing ships. All of these had been inherited from the Imperial regime, and all had been built in foreign shipyards. Some of these were famous, notably the *Yermak*, which was the first ice-breaker to achieve real success; and the *Krasin*, built in 1917, which, in company with the ice-forcing ship *Malygin*, rescued most of General Umberto Nobile's ill-fated companions from the ice in 1928, when the Polar explorer Amundsen sacrificed his life in a vain attempt at rescue.

With the immense strides made by the Soviets in ship-building and the development of the shipyards at Leningrad, Nikolaev, and Krasnoye Sormovo, they were able to commence building their own ice-breakers, and by the beginning of 1935 six new powerful vessels were on the stocks. They were to be completed in 1937, but the time-lag in the Russian Five-Year Plan was so serious that, early in that year, the programme was about 60 per cent. in arrear, and the *Y. Stalin* was not launched until 1938. It was freely acknowledged in Russia that in 1937 these delays meant that navigation in the Arctic in winter could not be assured.

There is a different picture to-day, however. By the end of 1939, four new ice-breakers of the *Krasin* type were at sea, built in the shipyards of Leningrad and Nikolaev; and two Diesel-engined ice-breakers of 12,000 h.p., to be named *Kuibyshev* and *Kirov*, had been completed at the Marti yards. In 1940, including ships completed during that year, the Soviets had no fewer than thirteen ice-breakers taking part in the navigation season, the flagship *Y. Stalin* heading a great convoy of freight and passenger ships on the western route, whilst her sister-ship, *Lazar Kaganovich*, kept open the eastern route from Vladivostok. The giant *Vyacheslav Molotov* assured the freedom of the northern route, and another ice-breaker, *Serge Orjonikidze*, built at Krasnoye Sormovo on the Volga, had been sent for service in the Caspian Sea.

In addition to these, new ice-forcing ships, able to force their own passage, though not to clear the way for others to follow, had been completed.

Moreover, other methods of defeating the ice had been adopted with remarkable success. At the Leningrad yards tests were made of an invention by the Russian engineer Chezhikov for cutting ice by means of a powerful water-jet under pressure of 50-60 atmospheres, and a jet of 17-mm. cut through a metre of ice, 1 metre thick, in 15 mins. About 1936 a hydro ice-cutter was installed on board *Yermak* and tried out, with results so encouraging that monitor ice-breakers were designed, ensuring the normal movement of ships through ice up to 40 ins. in thickness. Power-motors are set up in the bows, both on deck and below the water-line. Air and water pressure is used to break up the ice from below, which is then crushed by powerful jets of water from the deck.

(*Continued on following page*)

THE NEW ROUTE FROM THE PHILIPPINES WHICH THE RUSSIANS ARE NOW EXPLOITING

An organisation in Russia known as the "Main Administration of the Soviet Northern Sea Route" has been given the task of keeping the Ob, Yenisei and Lena Rivers free of ice, so that supplies coming from the U.S.A. via the Philippines can reach the interior of Russia. To aid them in their task, the Administration will make plentiful use of the finest fleet of ice-breakers in the world—one of the closely-guarded, pre-war secrets of the Russian Government

THE NEW QUETTA ROUTE INTO RUSSIA: The first convoys of supply have already passed along this route and the road is now being repaired and improved by gangs of workers. The new road runs via Dusdap and Meshed to Merv and Krasnovodsk, or alternatively to Teheran and Tabriz

(Continued from preceding page)

Naturally, the value of the ice-breakers has been enormously enhanced by the use of wireless, and by adding seaplanes to their equipment. Seven survivors of Nobile's *Italia* were located and picked up after the crash by means of feeble messages sent out by them on a small set rescued from the wreckage of the aeroplane. And on that occasion the ice-breaker *Krasin* proved beyond doubt her superiority in rescue work where landing is too rough for an aeroplane and the ice is breaking up into floes.

Again, it was to the wireless that the gallant crew of the ice-forcing ship *G. Sedov* owed their lives when their vessel was ice-bound for no less than twenty-seven months on end. *G. Sedov* went into its great drift in October 1927, and much knowledge of the greatest scientific value was gained before the giant *Y. Stalin* found her and led her triumphantly out of the Polar seas—in January 1940!

The latest types of Soviet ice-breakers carry a seaplane, and have three powerful radio stations and a wireless telephone. They have two steam engines, aggregating up to 12,000 h.p., and are capable of attaining a speed of more than 20 km. an hour.

Yet more ambitious types were recently in contemplation, developing up to 24,000 h.p., but building plans have no doubt been interrupted by the German successes.

Only one of these ships which are so essential to Russia in war as well as in peace—the *Litke*, built in 1909—is of the ice-cutting type. *Litke* can only be employed in ice which is not of great thickness, or during summer, when there is leeway for the broken ice to be pushed aside. All the rest are of the ice-crushing type, breaking the ice by sheer weight of bows, which are shaped to a slant of about 70 deg.; they can be used in work in solid ice-fields the whole year round. They are immensely strong, a hull within a hull, the outer being encased in heavy steel plates to withstand the terrific pressure of the ice.

Great as were their uses in peacetime trading and research work, their value now to Russia at war is tenfold. To these brave ships and crews is owed the essential fulfilment of freight transportation plans to Murmansk, Leningrad, Archangel, Moscow and Vladivostok.

CASUALTIES in MECHANISED WARFARE

By Dr. G. B. SHIRLAW

(Who Worked for a Year in a Moscow Clinic, After Service in the Spanish War)

THE tremendous effort which the Soviet Union was making to achieve and surpass European standards of hygiene was plain to all who encountered the Russian medical observer at the Spanish front. His name, which he gave as Kluss, concealed the identity of an army surgeon of high rank, and in all that had any bearing upon the medical well-being of the troops he was a brilliant and indefatigable worker. No risk or hardship deterred him; when in authority he drove his doctors hard; in discussion and instruction he was as lucid as he was forcible.

This surgeon was always advocating the sending forward of surgical teams to perform operations close to the fighting zones, a policy of doubtful wisdom when thrust and counter-thrust were frequent and the front rarely stable. In the end, a hospital system was worked out which attempted to combine rapid surgery with the degree of safety which high mobility affords. The "three point forward" system, as it was called, is now part of military history. Since the present Russian technique is an improvement upon it, some account of the basic theory is necessary here.

In 1914-18 casualty clearing stations were occasionally bombed and sometimes suffered long-range bombardment; but they were fairly safe, on the whole. As air power developed, however, they grew less so, and the Government Army in Spain soon discarded Red Cross markings, since these induced immediate air attack. To move the clearing stations further back meant dangerous delay in treatment (a wound goes septic in six to eight hours); even skilled camouflage failed, since the dust clouds raised by the ambulances always betrayed their destinations. The eventual solution was daring: casualty clearance functions were decentralised, spread over numerous small units—*and these were sent nearer to the front line.*

The functions of a casualty clearance system are threefold. They are classification, urgent surgery, and the temporary treatment (at a level as high as possible) of those wounds the final surgical treatment of which may safely be delayed till the base hospital is reached. In the "three point forward" system, each of these three tasks was assigned to a separate unit which was sent forward as far as was safe. There was a classification post close to the fighting zone—rarely more than three miles away and sometimes less than one; and there were two small, highly-mobile hospitals—Nos. 1 and 2—which worked in conjunction. The No. 1 hospital did urgent surgery—abdominal, chest and head cases; tourniquet wounds; burns of large area. The No. 2 hospital did the less serious work. Minor injuries went to neither hospital, but were sent straight down the line "under their own steam."

It was found in practice that the No. 1 hospital had usually to deal with 2-3 per cent. of the total casualties, and the percentage never rose above 10. If things got too hot in the forward area, the No. 1 hospital would load its equipment on to a lorry and fall back beyond the No. 2. This hospital then took over No. 1 duties, and the original No. 1 became a No. 2. In an advance the process was reversed. The units were small and easily hidden. With two first-rate doctors at the classification post, one "three point forward" organisation could serve a brigade.

In the Finnish campaign the Russians introduced air evacuation for all No. 1 type cases which could be handled, and these were sent direct by plane to specialist hospitals. In the German campaign against Poland, it is claimed that 5,000 German wounded were evacuated by air, but it is to be noted that here, as in Finland, the air-ambulance service depended on complete superiority in the air.

Such information as is to hand concerning the medical situation along the Russian front to-day indicates that both casualty services have been near to breaking-point. Panzer thrusts, resulting in a confused battle zone, make ambulance work particularly perilous. For all its shortcomings in equipment, the Russian medical service has perhaps the advantage in conditions as they now exist. Mobility, self-reliance, a skill in improvisation founded on long necessity, and, above all, a burning zeal to serve—these are the qualities needed now.

The war casualty needs first, morphia, to reduce pain and shock; next, anti-tetanus serum to combat the infection so rife in agricultural soil; thirdly, sulphanilamide (the famous M and B 693) to prevent blood-poisoning, pneumonia and similar ills; and lastly, an anti-gangrene serum to ward off the highly-infectious organism which causes the rotting away of flesh round a wound. Russian medicine has succeeded in combining all these agents in a No. 1 injection which can be administered as a matter of routine, and by semi-skilled hands, to every casualty likely to benefit.

On the German side, reports are few, and when reliable are disquieting. The casualty system was designed for a rapid advance. The wounded were left under guard till the medical services came up with them. When a German system breaks, it breaks completely. The feverish stripping of hospitals in occupied territory of anti-pneumonic preparations may be the first hint of medical disaster to the Nazi war machine.

THE "THREE POINT FORWARD" SYSTEM FOR THE WOUNDED IN RUSSIA—*Drawing by L. Ashwell Wood*

This system consists of a "Classification Post" close to the battle zone (from one to three miles from the actual fighting); two highly mobile hospitals, Nos. 1 and 2 (of which No. 1 does urgent surgery and No. 2 the less serious cases). The minor injuries go straight back to the rear and do not call at either hospital. If things get too hot, No. 1 hospital packs up and falls back behind No. 2, which then takes over the duties of No. 1. Alternatively when an advance is taking place, this process is reversed

THE WAR ON THE EASTERN FRONT—II

WHERE THE RUSSIANS HAVE STUBBORNLY RESISTED THE GERMAN ARMY IN THE CRIMEA : The historic city and port of Sebastopol (as seen from the south-east) protected by its ring of defences. This is the only important city left to the Russians in this region—*Drawing by Percy Home*

A KEY PLAN OF SEBASTOPOL AND ITS HARBOUR : Showing the bay on which the city has been built and the harbours on which the Black Sea Fleet was previously based

On a small-scale map, Sebastopol appears to be situated immediately upon the west coast of the Crimean Peninsula : in reality, this is not so. The city and port lie on the south shore of an inlet or arm of the Black Sea known as Sebastopol Bay. The main part of the city, with its churches and cathedrals, lies as shown in the *above* drawing on a central projecting spur of land which is very rocky in character and which rises fairly steeply both to east and west. On the rising ground above the town harbour are a number of barracks ; to the west the town spreads out over undulating land, bitten into—here and there—by the rocky gullies of streams and rivers. The Chersonese headland lies to the west of the main city on another spur of land. The present defences of the city have lain at some distance from Sebastopol itself and its immediate suburbs. Backtsheserai, the ancient Tartar capital of the Crimea, has been mentioned as a centre of intense fighting, and it is here that the main enemy concentrations are located. The defenders at Sebastopol have not only been holding and repelling all attacks, but several strategic heights have recently been regained by the Russians. Normally the harbour would be full of ships, including naval vessels ; but to-day the Russian Black Sea Fleet is known to be operating from other bases in Caucasia

THE DEFENCE OF THE CRIMEA

The map *on the left* is a key to the larger drawing of Sebastopol reproduced *above*. It shows the position of the city on the spur of land projecting into the southern side of the Bay of Sebastopol. The main railway station lies to the south ; this connected the city with Perekop, and then across the Isthmus with the Russian mainland. The town harbour is officially known as Meridian Bay ; and it is here that units of the Russian Black Sea Fleet were wont to undergo minor refitting or to take on stores

"THE TOWN BATTERIES OR INTERIOR FORTIFICATIONS OF SEBASTOPOL"

The two pictures *above* are reproduced from prints published during the Crimean War which took place in 1854-55. The main attack was made in the Black Sea and centred on the capture of the fortress of Sebastopol,

"THE ADMIRALTY BUILDING IN SEBASTOPOL"

commanding the harbour where lay the principal forces of the Russian Fleet. On October 17, 1854, the bombardment of the fortress began, but it was not till September 5—nearly a year later—that the Russians evacuated their positions

"A LIGHT GERMAN TRAIN ATTACKING A RUSSIAN POSITION": This picture comes from a German source. It was evidently taken some time ago, during the earlier stages of the Russian campaign. Apparently the use of armoured trains has not been confined to the Russians alone: the Germans, too, have been making use of them—and in conjunction with infantry, if the evidence of the soldier-cyclists seen in this picture is to be taken into account. Not only are the sides of this German train armoured, but the guns themselves have been mounted in armoured turrets

RUSSIAN MUNITION WORKERS CEASE WORK TO HEAR THE LATEST BULLETINS: Transport and other difficulties make newspapers a luxury. By reading out the news in this manner every worker can be kept informed of the progress of the war

BOYS AND GIRLS REPLACE THEIR ELDERS IN THE FACTORIES: A director of a clothing factory in Kutaissi receives young girl students who have applied to him for work more closely allied to the stupendous Russian war effort

"KERTCH FROM THE NORTH"—a print published by F. and D. Colnaghi, of Pall Mall East, in the year 1855

Situated on the Straits of Yenikale, separating the Sea of Azov from the Black Sea, stands Kertch, which was formerly the capital of the Grecian Kingdom of the Bosphorus. It is to this point that the Germans have penetrated, ready for their descent on the rich Caucasus regions fronting the eastern shores of the Black Sea. At the time of the Crimean War, the town was occupied by British and French forces in support of the attack on Sebastopol: since then, Kertch had been strongly fortified, and one writer went so far as to say that the fortifications "absolutely protect the Sea of Azov from invasion"! In their thrust through the Crimea, the Germans first occupied Theodosia and then entered the town of Kertch in November of this year

AN ANTI-TANK WEAPON IN LIBYA

A Deadly British Device Used to Destroy Enemy Tanks in the Western Desert, Now First Revealed by the Cinematograph Camera

The series of pictures reproduced here are from a cinema film taken by an operator of the Military History and Information Section of the Australian Imperial Forces. They show one of the deadly British anti-tank weapons now being employed in Libya. The charge is set in the ground wherever an assault by tanks is likely to take place. On being exploded, it sends forth a flame of intense heat. The pictures above should be read down from the top left-hand corner; then from the top of the second column. The first shows the commencement—the upheaval of the earth as the charge is fired; then follows the subsequent development, with flame and smoke and dust and rubble making monstrous patterns in the sky. All six pictures took only a few seconds to film!

THE MIDDLE EAST ARENA

A Collection of Pictures from Malta and the Mediterranean, Showing British Activities in this Vast Theatre of War

BRITISH G.O.C. AT MALTA : Major-General S. J. P. Scobell, C.B., C.M.G., D.S.O., retired in 1939. He returned to the Army, and is now in command of the troops on the Island. He has had considerable experience in Somaliland, Turkey and India

THE VICE-ADMIRAL AT MALTA : Sir W. T. R. Ford, K.B.E., C.B., Vice-Admiral in charge and Admiral Superintendent of H.M. Dockyard since 1937. He commanded the *Royal Oak* in 1929, and from 1934-36 was in command of the Australian Squadron

THE GOVERNOR-GENERAL IS GREETED BY THE LIEUTENANT-GOVERNOR : His Excellency Lieut.-General Sir W. G. S. Dobbie, K.C.B., C.M.G., D.S.O., was in command of the troops in Malta and Acting Governor till his appointment as Governor-General last year. He is sixty-two years of age and has been an inspiration to everyone on the Island. Sir Edward Jackson, O.B.E., was appointed Lieutenant-Governor in 1940, after a very distinguished legal career in Africa and Ceylon. The General is here seen meeting the Lieutenant-Governor on his arrival by air at a Maltese aerodrome

MALTA, LIKE LONDON, CARRIES ON DESPITE THE AIR RAIDS : This corner building was demolished by bombs. A makeshift shop was soon established, however, and palms installed on the low roof! Note the V sign and the Poppy Day posters

THE MALTA AIR-SEA RESCUE SERVICE : As in waters nearer home, the R.A.F. at Malta operate a rescue service for friend and foe alike. This picture shows one of the high-speed launches at its moorings in the harbour ready for the next job of work : a smaller craft, in the foreground, stands by

FIRE-FIGHTERS AT WORK AFTER A RAID : Malta has suffered so many raids—owing to its proximity to Sicily—that the inhabitants have lost count of them. It has been announced that every citizen now has his own shelter. Despite the heavy damage inflicted on the island, business has been carried on throughout—just as in England. The presence of British day-fighters and night-fighters has, during recent months, lessened the severity of the air attacks ; but the raids have not by any means ceased yet

THE BRITISH ARMY IN MALTA : After beating the "Retreat," a British column marches down a bombed street on the Island, followed by an enthusiastic crowd of the gallant Maltese. The latter are amongst the bravest and toughest of Mediterranean peoples

THE MIDDLE EAST ARENA

(continued)

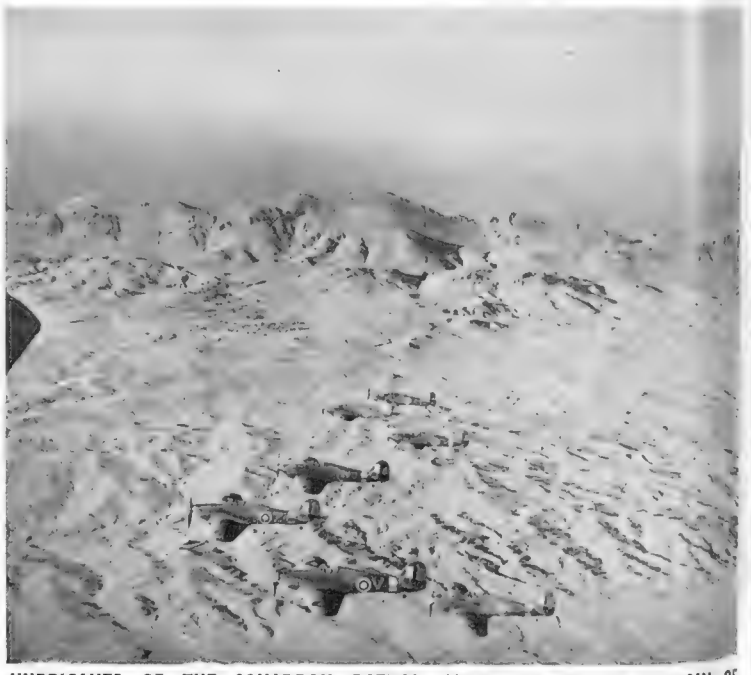
A LIGHTER MOMENT AT GIBRALTAR : A gala recently took place at Gibraltar in aid of the dependants of those who went down in H.M.S. *Hood*, and this picture shows a "pole race" in progress during the proceedings

AIR VICE-MARSHAL H. P. LLOYD, M.C., D.F.C., Air Officer Commanding the Royal Air Force in the Mediterranean : He began his Service career as a private in the Royal Engineers and served from 1915-17, being wounded three times ; he then joined the R.F.C. in 1917, and was engaged in Army Co-operation in France until the Armistice. Since the last war he has seen ten years' active service in India, and has four bars to his Indian General Service Medal, being mentioned three times in despatches

THE "HORNET SQUADRON" IN CYPRUS : The Hornet, the official crest, is ornamented with the words "Pride of Ceylon" in recognition that funds for the Squadron were subscribed in Ceylon

GENERAL SIKORSKI VISITS THE ROCK : When the Polish Prime Minister and Commander-in-Chief recently visited Gibraltar, he was shown round the defences by the Governor, General Lord Gort, V.C. Later the Polish leader went on to Tobruk and Cairo

R.A.F. GROUND STAFF AT WORK : In the background, beyond the arid plain, the mountains of Cyprus rise thousands of feet : In the front line of the defences of the Mediterranean outpost of Cyprus stands a fighter Squadron which has experienced to the full the onslaughts of the *Luftwaffe* in the Battle of Britain, and which left England for the Middle East after having achieved the proud record of over 120 enemy aircraft definitely destroyed. Already the pilots and ground personnel of the Squadron have endeared themselves to the Cypriots ; and the high regard felt in the island for the pilots and airmen knew no bounds when an Italian reconnaissance bomber, which ventured into the area, was shot down by a pilot who has accounted for both the Squadron's victims in the Middle East. The other enemy aircraft destroyed was a Ju. 88, which crashed into the sea



HURRICANES OF THE SQUADRON PATROL OVER THE ROCKY TERRAIN OF CYPRUS—This is a very difficult country over which to fly, as in the event of a forced landing there are few likely spots for a modern high-speed aircraft to touch down satisfactorily

THE C.-IN-C., MIDDLE EAST, PRESENTS THE MILITARY CROSS : General Sir Claude Auchinleck recently decorated New Zealand officers, during a visit to the Western Desert, for bravery during the campaign in Crete. The Infantry Brigade concerned was awarded one Victoria Cross, one D.S.O. and one M.C. Major Lynch, recipient of the last-mentioned, is here receiving his medal at the hands of the General

THE HADFIELD-SPEARS AMBULANCE UNIT IN SYRIA : A group of the Commandant and some of the nurses : Standing from left to right are : a Free French nurse, Miss Rosaleen Forbes (daughter of the Hon. Mrs. Donald Forbes), Miss Barbara Forbes (Second in Command to Mrs. Spears), a Free French nurse, Miss Frania Kohen and Miss Annabel Mann (sister of the Marchioness of Queensberry). Seated are Miss Pamela Avery and Mrs E L. Spears, Commandant of the Unit

SOLDIERS, WOUNDED IN THE SYRIAN CAMPAIGN, receiving treatment in the open air by nurses of the Hadfield-Spears Ambulance Unit : The Hadfield-Spears Ambulance Unit, now operating in Syria, was originally equipped and financed by Lady Hadfield. In 1940 the Unit went to France attached to the French Army, but on its return to England all the equipment had to be left behind in France. The New York British War Relief Fund supplied £20,000 and, aided by donations from English subscribers, the Unit was re-equipped and, with many of the personnel who had been in France and some new members, was handed over to the Free French Forces by Mrs. E. L. Spears, wife of Major-General Spears, head of the Spears Mission. Mrs. Spears, better known perhaps as the eminent novelist, Mary Borden, was in charge of a hospital in the last war and is now a Commandant of the Hadfield-Spears Ambulance Unit. The Unit looked after the wounded, both British and French, during the Syrian campaign ; the maintenance of the Unit is provided by the Free French

THE SE[A] RESCUE SERVICE OVER THE MEDITERRANEAN : Th[e] twenty-one-years-old naval pilot of a Walrus flying-boat

A WALRUS SETS OFF ON A RESCUE SEARCH : Aircraft of the Royal and Dominion Air Forces fight many battles over the Mediterranean. Protection of the naval convoys maintaining the service to Tobruk results in many fierce melees Sometimes an aircraft is shot down and the pilot has to bale out. The Sea Rescue Service, operated by naval pilots flying Walrus aircraft, have done grand work in rescuing air crews. Their machines are amphibians, and can land comfortably on sea or aerodrome alike

THE BRITISH FORCES IN IRAQ : Indian troops take refreshment at a native coffee-house, whilst the local Iraqis sit back and smoke their hookahs—once more at peace with life since the British occupation of the country

THE WARTIME BOOM IN BOOKS

The Reading Habit has Grown Enormously During the War Months; Here is a Review of the Present Publishing Situation; What the Public Want and the Sales Achieved by Certain Types of Literature

By CHARLES GRAVES

FOR the first time since the early '20's, authors are enjoying sales of their books which run into several thousands. It was the circulating libraries, acting more or less as Lloyd's insurance brokers, which were responsible for the diminution of sales. At the same time, they guaranteed the publishers a certain return for their investment in almost any given book. Some authors felt that while it was very pleasant to have fifty people reading a single copy of their book, at least a dozen might have bought the book instead of getting it through their subscription library.

THE AUTHOR OF "FIGHTER PILOT" AT THE PALACE: Squadron-Leader Paul Richey has just paid a second visit to Buckingham Palace, to receive a Bar to his D.F.C. He also holds the Croix de Guerre for his share in the fighting before the collapse of France. Squadron-Leader Richey is the author of that wonderful book, *Fighter Pilot*, which electrified this country and the United States with its vivid descriptions of aerial combat

To-day the shrinkage in newspapers and periodicals, together with the black-out and the early closing of theatres and cinemas, are causing a real boom in books. In peacetime, believe it or not, the average sales of a novel were between 700 and 800 copies. And that figure includes best-sellers compensating for duds. To-day almost any book of fiction and other reasonably good book of general information is sure to do well. An added reason for this is that the number of books published this year will be in the neighbourhood of 6,000, as opposed to 16,000 in peacetime. Before the war broke out there was such a glut of books that even really good ones had no chance of emerging from the ruck of mediocre and second-rate volumes. In fact, if a publisher chooses to publish you, your reward is almost certain. There are, of course, still a number of books which misfire, but there are not many of them.

Booksellers and publishers are both, theoretically, on top of the world. Hatchards report that their sales in October were higher than they have ever been in the history of their firm, which was founded in the eighteenth century; and their November figures have eclipsed October. A leading firm of publishers told me that their sales in October were £11,000 higher than in the similar month of 1939.

In the meantime, it seems a great pity that the Admiralty, the War Office and the Air Ministry do not bring pressure to bear on the Minister of Supply to allow more paper for the Penguin or Guild type of book. It needs five tons of paper to produce each of these 6d., 9d. or 1s. publications. That is because the troops' pay is so small that they can only afford books at this price, and hundreds of thousands of men have little to do and little or no money to spend when they are off duty. It seems most unfortunate that these men's boredom should not be alleviated by a larger quantity of 6d. books. Mr. David Roy, the head of the Book Department of W. H. Smith and Son, says that the scarcity of these books is really severe. He instanced railway-station bookstall after railway-station bookstall which was completely denuded by troops en route anxious to buy something to read. "They are like a horde of locusts, sweeping the bookstall completely bare," he said. Every day he receives letters from officers in the three Services pleading with him to send quantities of these cheap publications. And it is not just the thriller or the "sexy" story that the troops want to read. Solid biographies, fact books and technical books are equally popular with them.

Which reminds me. Few people realise what a small percentage of the annual publication of books is taken up by fiction. The figure is 9·8 per cent. Technical, medical, and educational books form 45 per cent. of the total; children's books aggregate 8·7 per cent.; the remaining 36 per cent. comes under the head of "General." Incidentally, of the works of fiction on sale on December 31, 1939, over 36 per cent. are no longer available to the public because the publishers are unable to afford the paper for them. But only 15 per cent. of the technical, medical and educational books are unavailable. This disproves the suggestion that publishers are solely out to make money. Equally, any good book will still find a publisher, despite the shortage of paper. The book publishers will sacrifice a good selling line for a good new author. This is sheer common sense. They expect to be in business for the next 100 years, and intend to maintain their prestige even at a temporary loss to themselves.

Efforts are being made by the Publishers' Association to clarify and improve their present position with regard to binders and printers. The binderies are in a terrible state, and unless protection is afforded to the binders, the whole book industry will collapse. As it is, the industry is badly bottlenecked. Practically all the binderies are at least four weeks behind their orders. The shortage of straw-board, which helps to make the covers of the books, is another problem. Holland and the rest of the Continent provide 50 per cent. of these in peacetime. Now we have to produce our own, just at the moment when all mixed waste is required for munitions. The paper quota for publishers is down to 42 per cent. of what individual publishers bought in the year ending August 31, 1939. What makes it worse is that 1939, like the preceding three years, was bad for the publishers, and only the most enterprising of them bought their normal supplies when the world was obviously about to crash over their ears.

One of the chief complaints of the publishing trade is that His Majesty's Stationery Office has entered into direct competition. *The Battle of Britain* and *Bomber Command* were plugged on the air in a way that no privately-produced publication could have secured. Moreover, the Stationery Office is granted priority in labour and other ways over the publishing houses. The publishers themselves suggest that *The Battle of Britain* should have been issued to the Press and the periodicals instead of in the competitive way it was actually produced.

A certain amount of nonsense has been printed about authors having to write fewer words because of the shortage of paper, and about books next year being produced in paper covers instead of with the usual boards. There is no truth in this whatsoever, although the situation is admittedly serious, and smaller type is being used extensively.

During the next fortnight booksellers, publishers and authors look forward to the greatest sales of books in the history of this country. Owing to the fact that books are almost the only Christmas presents that one can buy without coupons, their optimism is probably justified, especially as there is not even any purchase tax. And that books are selling well I know from personal experience. *The Thin Blue Line* subscribed 1,800 copies at 5s. last April before publication. *Life Line*, published on November 10, had already subscribed 5,683 copies up to the previous Friday before publication at 8s. 6d.

The sale of book tokens has gone up 100 per cent. recently; and whereas a publisher thought he was quite daring in ordering a first edition of 2,000 copies before the outbreak of war, he now thinks nothing of a preliminary order of 5,000 copies. There is a book shortly to be published on the history of the R.A.F., by Norman MacMillan, since the outbreak of war, for which 10,000 orders have been received before it has been printed. For another book, five thousand pounds' worth of orders have been placed, although it is still in the manuscript stage. Booksellers who have had a lean time for a number of years are at last being able to salt something away for a rainy day. Many publishers also who had a thin time from 1935 to 1939 can expect to pay off all their debts if things continue as they are going now.

The other side of the medal (as the French used to say) is that the printing costs and binding costs have gone up 39 per cent., the price of paper is doubled and on top of that the publishers have their compulsory war-risk insurance and a definite increase in staff wages.

A further statistic about the boom in books is provided by Mr. C. R. Edgeley, the general manager of the Argosy and Sundial Libraries, which have 2,300 branches in the British Isles. According to Mr. Edgeley, 3,000,000 more books have been taken out this year than were taken out in 1938 or 1939. The chief demand, apart from fiction, among the masses of the public is for (*a*) R.A.F. books; (*b*) Navy books; and (*c*)—a bad third—Army books. But the Navy books are rapidly overtaking and passing R.A.F. books if only because there has been such a glut of the latter in recent weeks and months.

Lady Eleanor Smith's new historical novel, *The Man in Grey*, Marguerite Steen's *The Sun is My Undoing*, and Osbert Sitwell's *Open the Door* are the ranking best-sellers in fiction. William Shirer's *Berlin Diary* tops the non-fiction best-sellers. In the meantime, *Ann of Green Gables*, by L. M. Montgomery, still sells 50,000 copies a year.

THE MAN WHO INVENTED THE "V" SIGN: He is a Belgian announcer in French at the B.B.C.—M. Victor de Laveleye, a lawyer and former President of the Belgian Liberal Party, and a Member of Parliament for Brussels. On January 14, he suggested in a broadcast the use of the "V" sign: some little time later it was learned that "V's" were appearing everywhere in Belgium and Northern France. It was then that the B.B.C. organised a campaign to spread the use of the "V" symbol to all occupied countries

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this publication should not be taken as an indication that they are necessarily available for export

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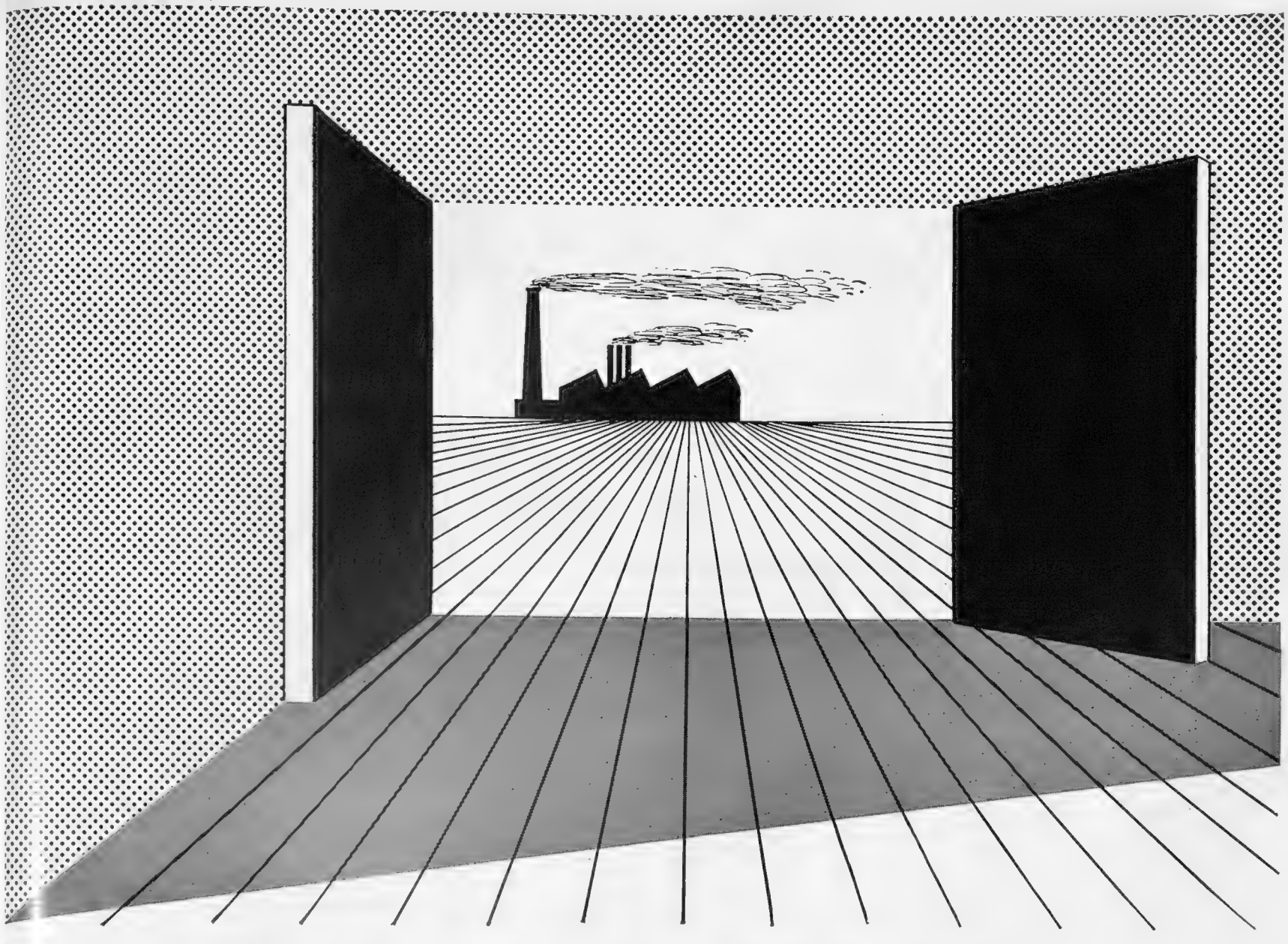

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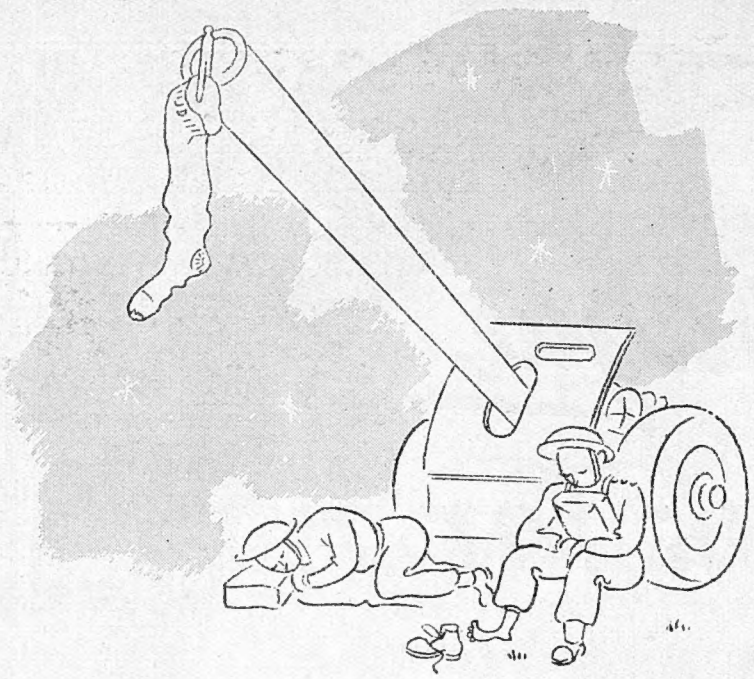

Christmas is on the way, and Austin Reed's are still in Regent Street.

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IN QUEST OF GOOD HOTELS

BY ASHLEY COURTENAY

Owing to rationing of paper and the demand on our editorial pages, it is necessary to omit from time to time Mr. Ashley Courtenay's usual weekly article. We would, however, emphasise that his services are always available for advising SPHERE *readers by post of hotels, both large and small, known to him personally. Letters, accompanied by a stamped, addressed envelope for reply, should be addressed to him c/o The Editor,* THE SPHERE, *Commonwealth House, 1, New Oxford Street, London, W.C.1. Personal and telephone inquiries, however, cannot be accepted.*

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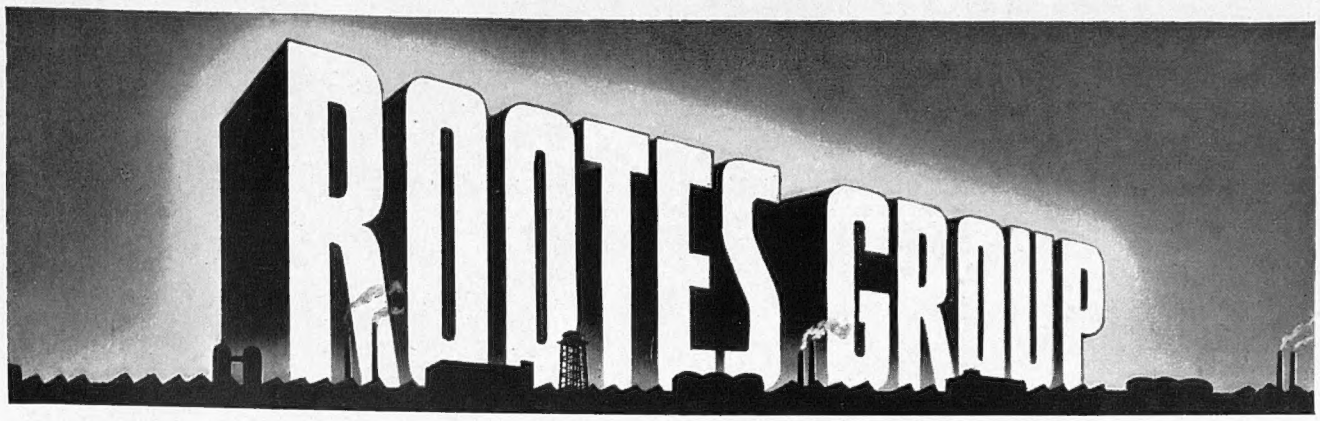

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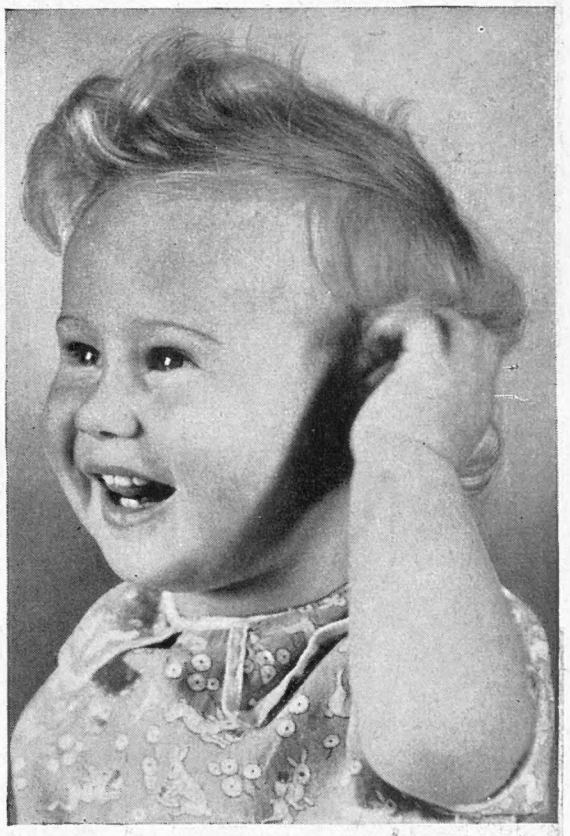

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